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Jameco Part Number 1878528

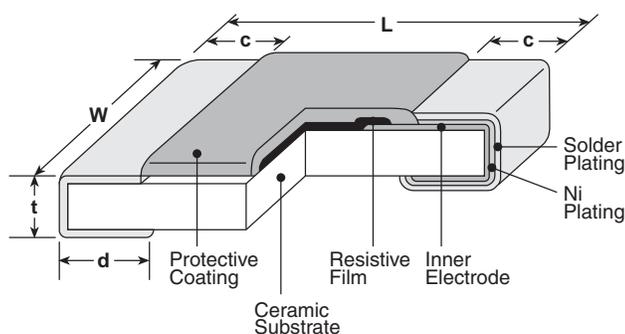
## general purpose 2%, 5% tolerance thick film chip resistor



### features

- RuO<sub>2</sub> thick film resistor element
- Anti-leaching nickel barrier terminations
- Meets or exceeds EIA 575, EIAJ RC 2690A, EIA PDP-100, MIL-R-55342F
- Marking: White three-digit on black protective coat  
No marking on 1F, 1H and 1E sizes
- Products with lead-free terminations meet EU RoHS requirements. Pb located in glass material, electrode and resistor element is exempt per Annex 1, exemption 5 of EU directive 2005/95/EC

### dimensions and construction



| NEW | Type<br>(Inch Size Code) | Dimensions inches (mm)  |                         |                          |   |                          |
|-----|--------------------------|---|-------------------------|--------------------------|---|--------------------------|
|     |                          | L   | W                       | c                        | d   | t                        |
|     | <b>1F</b><br>(01005)     | .015±.001<br>(0.4±0.02)   | .007±.001<br>(0.2±0.02) | .004±.001<br>(0.10±0.03) | .004±.001<br>(0.11±0.03)  | .005±.001<br>(0.13±0.02) |
|     | <b>1H</b><br>(0201)      | .024±.001<br>(0.6±0.03)   | .012±.001<br>(0.3±0.03) | .004±.002<br>(0.1±0.05)  | .006±.002<br>(0.15±0.05)  | .009±.001<br>(0.23±0.03) |
|     | <b>1E</b><br>(0402)      | .039 <sup>+0.004</sup> <sub>-0.002</sub><br>(1.0 <sup>+0.1</sup> <sub>-0.05</sub> ) | .02±.002<br>(0.5±0.05)  | .008±.004<br>(0.2±0.1)   | .01 <sup>+0.002</sup> <sub>-0.004</sub><br>(0.25 <sup>+0.05</sup> <sub>-0.1</sub> ) | .014±.002<br>(0.35±0.05) |
|     | <b>1J</b><br>(0603)      | .063±.008<br>(1.6±0.2)  | .031±.004<br>(0.8±0.1)  | .012±.004<br>(0.3±0.1)   | .012±.004<br>(0.3±0.1)  | .018±.004<br>(0.45±0.1)  |
|     | <b>2A</b><br>(0805)      | .079±.008<br>(2.0±0.2)  | .049±.004<br>(1.25±0.1) | .016±.008<br>(0.4±0.2)   | .012 <sup>+0.008</sup> <sub>-0.004</sub><br>(0.3 <sup>+0.2</sup> <sub>-0.1</sub> )  | .02±.004<br>(0.5±0.1)    |
|     | <b>2B</b><br>(1206)      | .126±.008<br>(3.2±0.2)  | .063±.008<br>(1.6±0.2)  | .02±.012<br>(0.5±0.3)    | .016 <sup>+0.008</sup> <sub>-0.004</sub><br>(0.4 <sup>+0.2</sup> <sub>-0.1</sub> )  | .024±.004<br>(0.6±0.1)   |
|     | <b>2E</b><br>(1210)      |   | .102±.008<br>(2.6±0.2)  |                          |   |                          |
|     | <b>2H</b><br>(2010)      | .197±.008<br>(5.0±0.2)  | .098±.008<br>(2.5±0.2)  |                          |   |                          |
|     | <b>3A</b><br>(2512)      | .248±.008<br>(6.3±0.2)  | .122±.008<br>(3.1±0.2)  |                          |   |                          |

### ordering information

| New Part # | RK73B | 2B   | T   | TD  | 102   | J                |
|------------|-------|--|---|---|---|------------------|
| Type       |       | Size   | Termination Material  | Packaging   | Nominal Resistance  | Tolerance        |
|            |       | 1F<br>1H<br>1E<br>1J<br>2A<br>2B<br>2E<br>2H<br>3A | T: Sn<br>(1F, 1H, 1E, 1J, 2A, 2B, 2E, 2H, 3A)<br>L: SnPb<br>(1E, 1J, 2A, 2B, 2E, 2H, 3A)<br>(Other termination styles may be available, please contact factory for options) | TB: 7" 2mm pitch pressed paper (01005 only)<br>TC: 7" 2mm pitch punched pressed paper (0201 only)<br>TCD: 10" 2mm pitch punched pressed paper (0201 only)<br>TP: 7" 2mm pitch punched paper (0402 & 0603)<br>TD: 7" paper tape (0603, 0805, 1206 & 1210)<br>TDD: 10" paper tape (0603, 0805, 1206 & 1210)<br>TE: 7" punched plastic (0805, 1206, 1210, 2010 & 2512)<br>TED: 10" punched plastic (0805, 1206, 1210, 2010 & 2512) | 2 significant figures + 1 multiplier<br>"R" indicates decimal on value <10Ω | G: ±2%<br>J: ±5% |

For further information on packaging, please refer to Appendix A.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

12/17/07

## applications and ratings

| Part Designation*      | Power Rating @ 70°C | T.C.R. (ppm/°C) Max. | Resistance Range E-24** (G±2%) | Resistance Range E-24** (J±5%) | Absolute Maximum Working Voltage | Absolute Maximum Overload Voltage | Operating Temperature Range*** |
|------------------------|---------------------|----------------------|--------------------------------|--------------------------------|----------------------------------|-----------------------------------|--------------------------------|
| NEW<br>RK73B1F (01005) | 1/32W (.03W)        | ±250                 | 6.8KΩ - 1MΩ                    | 6.8KΩ - 1MΩ                    | 15V                              | 30V                               | -55°C to +125°C                |
|                        |                     | ±300                 | 10Ω - 6.2K                     | 10Ω - 6.2K                     |                                  |                                   |                                |
| RK73B1H (0201)         | 1/20W (.05W)        | ±200                 | 10Ω - 10MΩ                     | 10Ω - 10MΩ                     | 25V                              | 50V                               |                                |
|                        |                     | ±400                 | —                              | 1Ω - 9.1Ω                      |                                  |                                   |                                |
| RK73B1E (0402)         | 1/16W (.063W)       | ±200                 | 10Ω - 1MΩ                      | 1Ω - 10MΩ                      | 50V                              | 100V                              |                                |
| RK73B1J (0603)         | 1/10W (.10W)        | ±400                 | 1Ω - 9.1Ω                      | 11MΩ - 22MΩ                    |                                  |                                   |                                |
| RK73B2A (0805)         | 1/8W (.125W)        | ±200                 | 10Ω - 1MΩ                      | 1Ω - 1MΩ                       | 150V                             | 300V                              |                                |
|                        |                     | ±400                 | 1Ω - 9.1Ω<br>1.1MΩ - 10MΩ      | 1.1MΩ - 22MΩ                   |                                  |                                   |                                |
| RK73B2B (1206)         | 1/4W (.25W)         | ±200                 | 10Ω - 5.6MΩ                    | 1Ω - 5.6MΩ                     | 200V                             | 400V                              | -55°C to +155°C                |
|                        |                     | ±400                 | 1Ω - 9.1Ω<br>6.2MΩ - 10MΩ      | 6.2MΩ - 22MΩ                   |                                  |                                   |                                |
| RK73B2E (1210)         | 1/2W (.50W)         | ±200                 | 10Ω - 1KΩ                      | 1Ω - 1KΩ                       |                                  |                                   |                                |
|                        | 1/3W (.33W)         |                      | 1.1KΩ - 5.6MΩ                  | 1.1KΩ - 5.6MΩ                  |                                  |                                   |                                |
|                        | 1/2W (.50W)         | ±400                 | —                              | 6.2MΩ - 10MΩ                   |                                  |                                   |                                |
|                        | 1/3W (.33W)         |                      | —                              | 6.2MΩ - 10MΩ                   |                                  |                                   |                                |
| RK73B2H (2010)         | 3/4W (.75W)         | ±200                 | 10Ω - 5.6MΩ                    | 1Ω - 5.6MΩ                     |                                  |                                   |                                |
|                        |                     | ±400                 | —                              | 6.2MΩ - 22MΩ                   |                                  |                                   |                                |
| RK73B3A (2512)         | 1W                  | ±200                 | 10Ω - 5.6MΩ                    | 1Ω - 5.6MΩ                     | 200V<br>(500V****)               | 400V<br>(500V****)                |                                |
|                        |                     | ±400                 | —                              | 6.2MΩ - 22MΩ                   |                                  |                                   |                                |

\* Parenthesis indicate EIA package size codes.

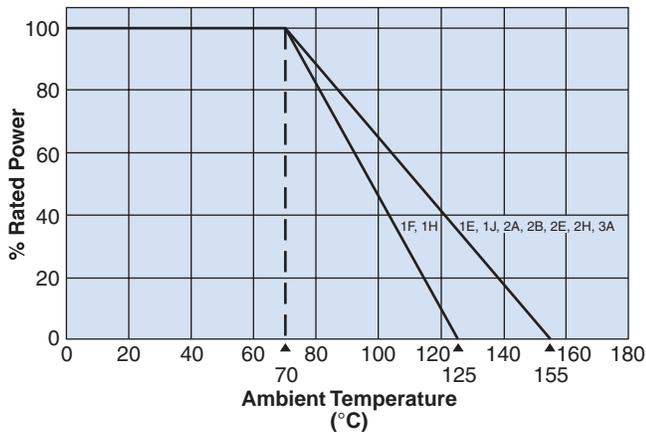
\*\* See Appendix D for available decade values.

\*\*\* IJ, 2A, 2B sizes available -55°C to +175°C (contact factory).

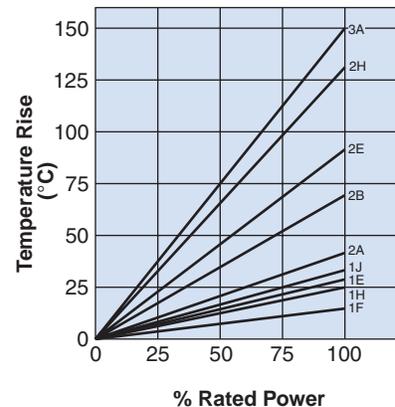
\*\*\*\* Please contact KOA Speer for the Max. working voltage and the Max. overload voltage.

## environmental applications

### Derating Curve



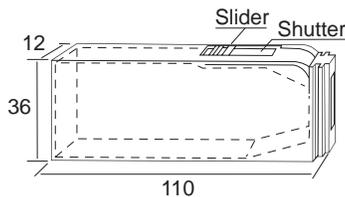
### Surface Temperature Rise



For complete environmental specifications, please refer to pages 34-35.

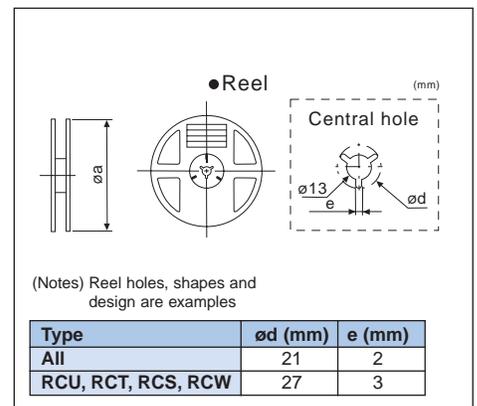
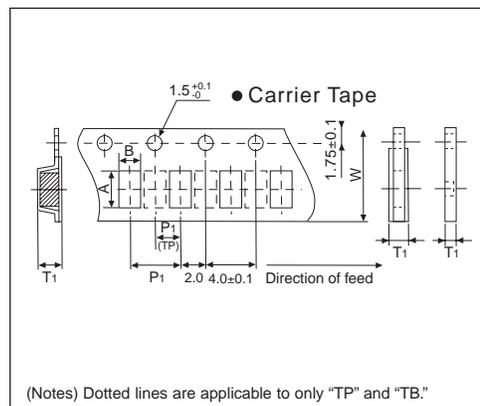
| Type  | Component Size (mm) |      |      | Carrier Tape | Quantity/<br>Reel<br>(Pieces) | Taping (mm) |           |           |          |             | Reel Size   |     |
|---|---------------------|------|------|--------------|-------------------------------|-------------|-----------|-----------|----------|-------------|-------------|-----|
|   | L                   | W    | T    |              |                               | A           | B         | W         | P1       | T1          |             |     |
| RK73B<br>RK73H<br>RK73-RT<br>RK73G<br>RK73A<br>RK73Z<br>SG73<br>RK73N<br>SR73<br>RF73<br>UR73<br>RN73<br>LT73<br>HV73<br>RN73H<br>SG73P<br>SG73S<br>SG73-RT | 1F                  | 0.4  | 0.2  | 0.12         | TB                            | 10000       | 0.45±0.03 | 0.25±0.03 | 8.0±0.2  | 2±0.05      | 0.31+0.2/-0 | 178 |
|   | 1H                  | 0.6  | 0.3  | 0.23         | TC                            | 10000       | 0.67±0.05 | 0.37±0.05 | 8.0±0.2  | 2±0.05      | 0.42+0.2/-0 | 178 |
|   | 1E                  | 1    | 0.5  | 0.35         | TP                            | 10000       | 1.15±0.1  | 0.65±0.1  | 8.0±0.2  | 2±0.05      | 0.45+0.2/-0 | 178 |
|   | 1J                  | 1.6  | 0.8  | 0.45         | TP                            | 10000       | 1.9±0.1   | 1.1±0.1   | 8.0±0.2  | 2±0.05      | 0.6+0.2/-0  | 178 |
|   |                     |      |      |              | TD                            | 5000        | 1.9±0.1   | 1.1±0.08  | 8.0±0.2  | 4.0±0.1     | 0.6+0.2/-0  | 178 |
|   |                     |      |      |              | TDD                           | 10000       | 1.9±0.1   | 1.1±0.1   | 8.0±0.2  | 4.0±0.1     | 0.6+0.2/-0  | 255 |
|   | 2A                  | 2    | 1.25 | 0.5          | TP                            | 10000       | 2.4±0.2   | 1.65±0.2  | 8.0±0.2  | 2±0.05      | 0.75+0.2/-0 | 178 |
|   |                     |      |      |              | TD                            | 5000        | 2.4±0.2   | 1.65±0.2  | 8.0±0.2  | 4.0±0.1     | 0.75+0.2/-0 | 178 |
|   |                     |      |      |              | TE                            | 4000        | 2.4±0.2   | 1.6±0.2   | 8.0±0.2  | 4.0±0.1     | 0.9±0.1     | 178 |
|   |                     |      |      |              | TDD                           | 10000       | 2.4±0.1   | 1.65±0.1  | 8.0±0.2  | 4.0±0.1     | 0.75+0.2/-0 | 255 |
|   |                     |      |      |              | TED                           | 10000       | 2.4±0.2   | 1.45±0.15 | 8.0±0.2  | 4.0±0.1     | 0.65±0.1    | 255 |
|   | 2B                  | 3.2  | 1.6  | 0.6          | TD                            | 5000        | 3.5±0.2   | 2±0.2     | 8.0±0.2  | 4.0±0.1     | 0.75+0.2/-0 | 178 |
|   |                     |      |      |              | TE                            | 4000        | 3.5±0.2   | 1.9±0.2   | 8.0±0.2  | 4.0±0.1     | 1.0±0.1     | 178 |
|   |                     |      |      |              | TDD                           | 10000       | 3.5±0.1   | 1.9±0.1   | 8.0±0.2  | 4.0±0.1     | 0.75+0.2/-0 | 255 |
|   |                     |      |      |              | TED                           | 10000       | 3.5±0.1   | 1.9±0.2   | 8.0±0.2  | 4.0±0.1     | 1.0±0.1     | 255 |
| 2E  | 3.2                 | 2.6  | 0.6  | TD           | 5000                          | 3.5±0.2     | 2.85±0.2  | 8.0±0.2   | 4.0±0.1  | 0.75+0.2/-0 | 178         |     |
|   |                     |      |      | TE           | 4000                          | 3.5±0.2     | 2.85±0.2  | 8.0±0.2   | 4.0±0.1  | 1.0±0.15    | 178         |     |
|   |                     |      |      | TDD          | 10000                         | 3.5±0.1     | 2.8±0.1   | 8.0±0.2   | 4.0±0.1  | 0.75+0.2/-0 | 255         |     |
|   |                     |      |      | TED          | 10000                         | 3.6±0.15    | 2.9±0.15  | 8.0±0.2   | 4.0±0.1  | 1.0±0.1     | 255         |     |
| 2H  | 5                   | 2.5  | 0.6  | TE           | 4000                          | 5.35±0.2    | 2.9±0.2   | 12.0±0.1  | 4.0±0.1  | 1.0±0.15    | 178         |     |
|   |                     |      |      | TED          | 10000                         | 5.4±0.2     | 2.9±0.2   | 12.0±0.1  | 4.0±0.1  | 0.85±0.1    | 255         |     |
|   |                     |      |      | TE           | 4000                          | 6.65±0.2    | 3.44±0.2  | 12.0±0.1  | 4.0±0.1  | 1.0±0.15    | 178         |     |
| 3A  | 6.3                 | 3.1  | 0.6  | TED          | 10000                         | 6.9±0.2     | 3.6±0.2   | 12.0±0.1  | 4.0±0.1  | 0.85±0.1    | 255         |     |
|   |                     |      |      | TE           | 4000                          | 5.35±0.5    | 2.9±0.2   | 12.0±0.3  | 4.0±0.1  | 1±0.15      | 178         |     |
|   |                     |      |      | TE           | 4000                          | 4.85±0.2    | 3.35±0.2  | 12.0±0.3  | 4.0±0.1  | 1±0.15      | 178         |     |
| WK73  | 2H                  | 2.5  | 5.0  | 0.4          | TE                            | 4000        | 6.65±0.2  | 3.44±0.2  | 12.0±0.3 | 4.0±0.1     | 1±0.15      | 178 |
|   | 2J                  | 3.1  | 4.6  | 0.4          | TE                            | 4000        | 4.85±0.2  | 3.35±0.2  | 12.0±0.3 | 4.0±0.1     | 1±0.15      | 178 |
|   | 3A                  | 3.1  | 6.4  | 0.45         | TE                            | 4000        | 6.65±0.2  | 3.44±0.2  | 12.0±0.3 | 4.0±0.1     | 1±0.15      | 178 |
| CND   | 2B10                | 6.40 | 3.1  | 0.6          | TE                            | 4000        | 6.6±0.2   | 3.4±0.2   | 12.0±0.1 | 4.0±0.1     | 1±0.15      | 178 |
|   | 1J10                | 3.20 | 1.6  | 0.55         | TD                            | 5000        | 3.5±0.1   | 2.0±0.1   | 8.0±0.2  | 4.0±0.1     | 0.75+0.2/-0 | 178 |
|   | 2A10                | 4.00 | 2.1  | 0.6          | TE                            | 4000        | 4.45±0.2  | 2.5±0.2   | 12.0±0.1 | 4.0±0.1     | 1±0.15      | 178 |
| CNB   | 2B5Z                | 3.2  | 2.5  | 0.6          | TE                            | 4000        | 3.5±0.2   | 3.0±0.2   | 8.0±0.2  | 4.0±0.1     | 1±0.15      | 178 |
|   | 2E9Z                | 6.40 | 3.2  |              | TE                            | 4000        | 6.7±0.2   | 3.5±0.2   | 12.0±0.1 | 4.0±0.1     | 1±0.15      | 178 |

### Bulk Case (RK73 1E, 1J, 2A, 2B) Packaging Designation: BK



| Style | Packaging Quantity |
|-------|--------------------|
| 1E    | 50,000 pieces/case |
| 1J    | 25,000 pieces/case |
| 2A    | 10,000 pieces/case |
| 2B    | 5,000 pieces/case  |

### Packaging specifications



| Type                               | Component Size (mm)  |         |         | Carrier Tape | Quantity/<br>Reel<br>(Pieces) | Taping (mm) |                   |                    |          |          | Reel Size                  |                |     |
|------------------------------------|----------------------|---------|---------|--------------|-------------------------------|-------------|-------------------|--------------------|----------|----------|----------------------------|----------------|-----|
|                                    | L                    | W       | T       |              |                               | A           | B                 | W                  | P1       | T1       |                            |                |     |
| CN<br>CN_A<br>CN_K/N<br>CNZ<br>CNN | 1F8                  | 3.8±0.1 | 1.6±0.2 | 0.44±0.1     | TP                            | 5000        | 4.0±0.1           | 1.8±0.1            | 8.0±0.2  | 2.0±0.05 | 0.55±0.1                   | 178            |     |
|                                    | 1E2K                 | 1.00    | 1       | 0.35         | TP                            | 10000       | 1.2±0.1           | 1.2±0.1            | 8.0±0.2  | 2.0±0.05 | 0.45±0.1                   | 178            |     |
|                                    | 1E4/1E4K             | 1.60    | 1.6     | 0.6/0.5      | TP                            | 10000       | 2.2±0.1           | 1.2±0.1            | 8.0±0.2  | 2.0±0.5  | 0.45±0.1                   | 178            |     |
|                                    | 1J2/1J2K             |         |         |              | TD                            | 5000        | 1.9±0.1           | 1.9±0.1            | 8.0±0.2  | 4.0±0.1  | 0.6+0.2/-0<br>0.75+0.2/-0/ | 178            |     |
|                                    | 1J4/1J4KA            | 3.20    | 1.6     | 0.6/0.5      | TDD                           | 10000       | 1.9±0.1           | 1.1±0.1            | 8.0±0.2  | 4.0±0.1  | 0.6+0.2/-0<br>0.75+0.2/-0/ | 255            |     |
|                                    |                      |         |         |              | TD                            | 5000        | 3.5±0.1           | 2.0±0.1            | 8.0±0.2  | 4.0±0.1  | 0.75+0.2/-0/               | 178            |     |
|                                    | 1J8                  | 6.40    | 1.6     | 0.6          | TDD                           | 10000       | 1.9±0.1           | 1.1±0.1            | 8.0±0.2  | 4.0±0.1  | 0.75+0.2/-0<br>0.6+0.2/-0/ | 255            |     |
|                                    |                      |         |         |              | TE                            | 4000        | 6.9±0.2           | 2.0±0.2            | 12.0±0.1 | 4.0±0.1  | 0.9±0.1                    | 178            |     |
|                                    | 2A2                  | 2.54    | 2       | 0.6          | TED                           | 10000       | 6.9±0.2           | 2.0±0.2            | 12.0±0.1 | 4.0±0.1  | 0.9±0.1                    | 255            |     |
|                                    |                      |         |         |              | TE                            | 4000        | 2.9±0.2           | 2.4±0.2            | 8.0±0.2  | 4.0±0.1  | 1±0.15                     | 178            |     |
|                                    | 2A4                  | 5.08    | 2       | 0.6          | TED                           | 10000       | 2.9±0.2           | 2.4±0.2            | 8.0±0.2  | 4.0±0.1  | 1±0.15                     | 255            |     |
|                                    |                      |         |         |              | TE                            | 4000        | 5.4±0.2           | 2.3±0.2            | 12.0±0.1 | 4.0±0.1  | 1±0.15                     | 178            |     |
|                                    | 2A8                  | 10.16   | 2       | 0.6          | TED                           | 10000       | 5.4±0.2           | 2.3±0.2            | 12.0±0.1 | 4.0±0.1  | 1±0.15                     | 255            |     |
|                                    |                      |         |         |              | TE                            | 4000        | 10.6±0.2          | 2.45±0.2           | 16       | 4.0±0.1  | 1±0.15                     | 178            |     |
|                                    | 2B2                  | 2.54    | 3.2     | 0.6          | TED                           | 10000       | 10.6±0.2          | 2.45±0.2           | 16       | 4.0±0.1  | 1±0.15                     | 255            |     |
| TE                                 |                      |         |         |              | 4000                          | 3.5±0.2     | 2.85±0.2          | 8.0±0.2            | 4.0±0.1  | 1±0.15   | 178                        |                |     |
| 2B4                                | 5.08                 | 3.2     | 0.6     | TED          | 10000                         | 3.5±0.2     | 2.85±0.2          | 8.0±0.2            | 4.0±0.1  | 1±0.15   | 255                        |                |     |
|                                    |                      |         |         | TE           | 4000                          | 5.4±0.2     | 3.4±0.2           | 12.0±0.1           | 4.0±0.1  | 1±0.15   | 178                        |                |     |
| 2B8                                | 10.16                | 3.2     | 0.6     | TED          | 10000                         | 5.4±0.2     | 3.4±0.2           | 12.0±0.1           | 4.0±0.1  | 1±0.15   | 255                        |                |     |
|                                    |                      |         |         | TE           | 2000                          | 10.55±0.2   | 3.6±0.2           | 16                 | 4.0±0.1  | 1±0.15   | 178                        |                |     |
| RD41B<br>RN41<br>RM41<br>MLT<br>CC | 2A                   | 2       | 1.25    | -            | TED                           | 5000        | 10.55±0.2         | 3.6±0.2            | 16       | 4.0±0.1  | 1±0.15                     | 255            |     |
|                                    |                      |         |         |              | TE                            | 3000        | 2.4±0.2           | 1.5±0.2            | 8.0±0.2  | 4.0±0.1  | 1.45±0.2                   | 178            |     |
|                                    | 2B                   | 3.5     | 1.45    | -            | TED                           | 10000       | 2.4±0.2           | 1.5±0.2            | 8.0±0.2  | 4.0±0.1  | 1.45±0.2                   | 255            |     |
|                                    |                      |         |         |              | TE                            | 3000        | 3.7±0.2           | 1.7±0.2            | 8.0±0.2  | 4.0±0.1  | 1.7±0.2                    | 178            |     |
|                                    | 2D                   | 3.2     | 1.55    | -            | TED                           | 10000       | 3.7±0.2           | 1.7±0.2            | 8.0±0.2  | 4.0±0.1  | 1.7±0.2                    | 255            |     |
|                                    |                      |         |         |              | TE                            | 2000        | 3.7±0.2           | 1.7±0.2            | 8.0±0.2  | 4.0±0.1  | 1.7±0.2                    | 178            |     |
|                                    | 2E, 2H,<br>3AS       | 5.9     | 2.2     | -            | TED                           | 1500        | 6.2±0.2           | 2.4±0.2            | 12.0±0.1 | 4.0±0.1  | 2.6±0.2                    | 178            |     |
|                                    |                      |         |         |              | TE                            | 10000       | 6.2±0.2           | 2.4±0.2            | 12.0±0.1 | 4.0±0.1  | 2.6±0.2                    | 255            |     |
|                                    | NT73<br>LA73<br>LT73 | 1E      | 1       | 0.5          | 0.35                          | TP          | 10000             | 1.15±0.1           | 0.65±0.1 | 8.0±0.2  | 2.0±0.05                   | 0.45+0.1/-0    | 178 |
|                                    |                      | 1J      | 1.6     | 0.8          | 0.45                          | TD          | 5000              | 1.9±0.1            | 1.1±0.1  | 8.0±0.2  | 4.0±0.1                    | 0.6+0.2/-0     | 178 |
|                                    |                      | 2A      | 2       | 1.25         | 0.5                           | TD          | 5000              | 2.4±0.2            | 1.65±0.2 | 8.0±0.2  | 4.0±0.1                    | 0.75+0.2/-0    | 178 |
|                                    |                      | 2B      | 3.2     | 1.6          | 0.6                           | TD          | 5000              | 3.5±0.2            | 2±0.2    | 8.0±0.2  | 4.0±0.1                    | 0.75+0.2/-0    | 178 |
|                                    | PT72                 | 2A      | 2       | 1.25         | 1                             | TE          | 3000              | 2.25±0.1           | 1.45±0.1 | 8.0±0.2  | 4.0±0.1                    | 1.5±0.15       | 178 |
|                                    |                      | 2B      | 3.2     | 1.6          | 1                             | TE          | 3000              | 3.5±0.2            | 1.9±0.2  | 8.0±0.2  | 4.0±0.1                    | 1.5±0.15       | 178 |
|                                    | SDT73H<br>SDT73V     | 2B      | 3.2     | 1.6          | 0.5                           | TE          | 5000              | 3.6±0.1            | 2.0±0.1  | 8.0±0.2  | 4.0±0.1                    | 0.85+0.05/-0.1 | 178 |
| LP73                               | 1J                   | 1.6     | 0.8     | 0.5          | TE                            | 5000        | 1.9±0.1           | 1.1±0.1            | 8.0±0.2  | 4.0±0.1  | 0.6±0.1                    | 178            |     |
|                                    | 2A                   | 2.0     | 1.25    | 0.5          | TE                            | 5000        | 2.4±0.1           | 1.6±0.1            | 8.0±0.2  | 4.0±0.1  | 0.85±0.1                   | 178            |     |
|                                    | 2B                   | 3.2     | 1.6     | 0.5          | TE                            | 5000        | 3.6±0.1           | 2.0±0.2            | 8.0±0.2  | 4.0±0.1  | 0.85±0.1                   | 178            |     |
| RCU                                | 1.60                 | 0.8     | 1.15    | -            | TE                            | 2000        | 1.85±0.16         | 1.05±0.15          | 8.0±0.2  | 4.0±0.1  | 1.25±0.1                   | 178            |     |
|                                    |                      |         |         |              | TED                           | 5000        | 1.85±0.16         | 1.05±0.15          | 8.0±0.2  | 4.0±0.1  | 1.25±0.1                   | 255            |     |
| RCT                                | 2.00                 | 1.25    | 1.45    | -            | TE                            | 2000        | 2.45±0.15         | 1.65±0.1/          | 8.0±0.2  | 4.0±0.1  | 1.70±0.1                   | 178            |     |
|                                    |                      |         |         |              | TED                           | 5000        | 2.45±0.15         | 1.65±0.1/          | 8.0±0.2  | 4.0±0.1  | 1.70±0.1                   | 255            |     |
| RCS                                | 3.20                 | 1.6     | 1.25    | -            | TE                            | 2000        | 3.6±0.2           | 2.0±0.2            | 8.0±0.2  | 4.0±0.1  | 1.45±0.15                  | 178            |     |
|                                    |                      |         |         |              | TED                           | 5000        | 3.6±0.2           | 2.0±0.2            | 8.0±0.2  | 4.0±0.1  | 1.45±0.15                  | 255            |     |
| RCW                                | 3.2                  | 1.6     | 2       | -            | TE                            | 2000        | 3.4±0.1/<br>-0.05 | 1.95±0.1/<br>-0.05 | 8.0±0.2  | 4.0±0.1  | 2.2±.01                    | 178            |     |
| KL32                               | 3.2                  | 2.5     | 2.2     | -            | TE                            | 2000        | 3.55±0.1          | 2.70±0.1           | 8.0±0.1  | 4.00±0.1 | 2.7±0.5                    | 178            |     |
| KL73                               | 1H                   | 0.6     | 0.3     | 0.23         | TB                            | 10000       | 0.67±0.05         | 0.37±0.05          | 8.0      | 2.0      | 0.42+0.2/-0                | 178            |     |
|                                    | 1E                   | 1       | 0.5     | 0.35         | TP                            | 10000       | 1.15±0.1          | 0.65±0.1           | 8.0±0.2  | 2.0±0.05 | 0.45±0.2                   | 180            |     |
|                                    | 1J                   | 1.6     | 0.8     | 0.5          | TE                            | 4000        | 1.9±0.1           | 1.1±0.1            | 8.0±0.2  | 4.0±0.1  | 0.9±0.15                   | 180            |     |
|                                    | 2A                   | 2       | 1.25    | 0.5          | TE                            | 4000        | 2.4±0.2           | 1.6±0.2            | 8.0±0.2  | 4.0±0.1  | 1.0±0.15                   | 180            |     |
| KQ<br>KQC<br>KQT                   | 2B                   | 3.2     | 1.6     | 10.6         | TE                            | 4000        | 3.5±0.2           | 1.9±0.2            | 8.0±0.2  | 4.0±0.1  | 1.0±0.15                   | 180            |     |
|                                    | 0402                 | 1.10    | 0.5     | 0.5          | TD                            | 2000        | 1.22±0.05         | 0.73±0.05          | 8.0±0.2  | 4.0±0.1  | 0.65±0.1                   | 180            |     |
|                                    | 0603                 | 1.60    | 1       | 0.9          | TE                            | 2000        | 1.72±0.05         | 1.07±0.05          | 8.0±0.2  | 4.0±0.1  | 1.2±0.1                    | 180            |     |
|                                    | 0805                 | 2.00    | 1.5     | 1.3          | TE                            | 2000        | 2.22±0.1          | 1.6±0.1            | 8.0±0.2  | 4.0±0.1  | 1.65±0.1                   | 180            |     |
| LPC                                | 1008                 | 2.50    | 2.2     | 1.8          | TE                            | 2000        | 2.7±0.1           | 2.35±0.1           | 8.0±0.2  | 4.0±0.1  | 2.2±0.1                    | 180            |     |
|                                    | 4045                 | 4.50    | 4       | 4.5          | TED                           | 1000        | 4.158±0.2         | 4.75±0.2           | 12.0±0.1 | 8.0±0.2  | 5±0.2                      | 380            |     |
|                                    | 4235                 | 4.5     | 4.2     | 3.5          | TE                            | 2000        | 4.4±0.2           | 4.75±0.2           | 12.0±0.1 | 8.0±0.1  | 4.0±0.2                    | 330            |     |
|                                    | 9040N                | 9.00    | 10.2    | 4.9          | TED                           | 500         | 11±0.2            | 111.5±0.2          | 24±.01   | 12±.01   | 7.5±0.2                    | 380            |     |
|                                    | 12065                | 12.40   | 12      | 7.5          | TED                           | 300         | 12.5±0.2          | 13±0.2             | 24±.01   | 16±.02   | 8.2±0.2                    | 380            |     |
| SDR                                | 10065                | 10.40   | 10      | 7.5          | TED                           | 300         | 11±0.2            | 111.5±0.2          | 24±.01   | 16±.02   | 8.2±0.2                    | 380            |     |
|                                    | 0604                 | 5.6     | —       | 4.5          | TE                            | 1500        | —                 | —                  | 12       | 4.0±0.1  | 5.0                        | 330            |     |
|                                    | 0805                 | 7.8     | —       | 5.3          | TE                            | 1000        | —                 | —                  | —        | 12.0     | 6.2                        | 380            |     |
|                                    | 1006                 | 9.8     | —       | 5.8          | TE                            | 800         | —                 | —                  | —        | 12.0     | 6.7                        | 380            |     |

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

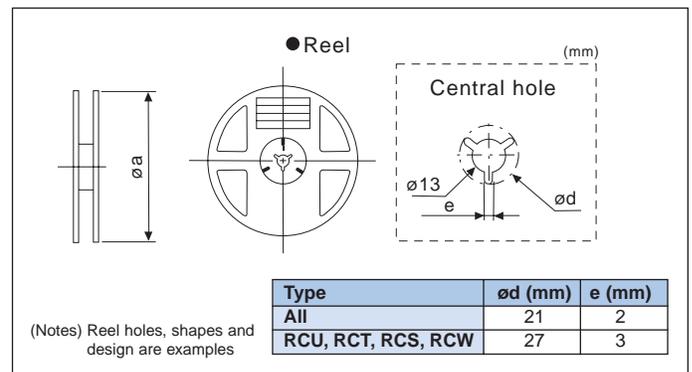
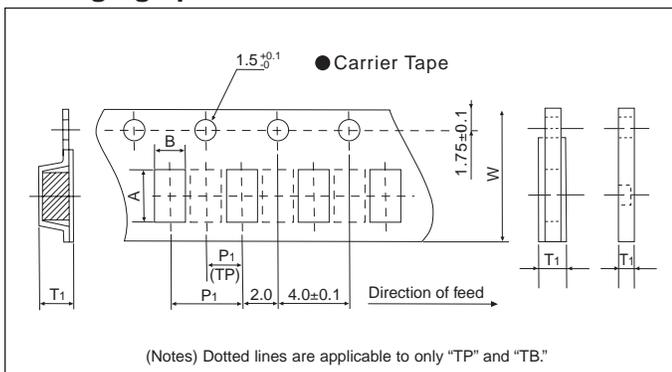
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| Type           |         | Component Size (mm) |           |           | Carrier Tape | Quantity/<br>Reel<br>(Pieces) | Taping (mm) |           |          |          |                           | Reel Size |
|----------------|---------|---------------------|-----------|-----------|--------------|-------------------------------|-------------|-----------|----------|----------|---------------------------|-----------|
|                |         | L                   | W         | T         |              |                               | A           | B         | W        | P1       | T1                        |           |
| SL             | 1       | 6.3                 | 3.1       | 1.9       | TE           | 1000                          | 6.8±0.1     | 3.6±0.1   | 12.0±0.1 | 8.2±0.2  | 2.35±0.1                  | 180       |
|                | 2/3     | 11.5                | 7         | 2.5       | TED          | 1000                          | 12.2±0.1    | 7.7±0.1   | 24       | 12.0±0.1 | 3.1±0.1                   | 255       |
| SLN            | 2       | 11.5                | 7         | 2.5       | TE           | 1000                          | 12.2±0.1    | 7.7±0.1   | 12.0±0.1 | 12±0.2   | 3.1±0.1                   | 225       |
| TLR            | 3A, 3AW | 6.4                 | 3.2       | 0.6       | TE           | 2000                          | 6.75±0.2    | 3.55±0.1  | 12.0±0.1 | 8.0±0.2  | 1.0±0.1                   | 180       |
|                | 2B, 2BN | 3.2                 | 1.6       | 0.6       | TD           | 5000                          | 3.5±0.2     | 2.0±0.2   | 8.0±0.2  | 4.0±0.1  | 0.75+0.2/-0               | 180       |
|                | 2H      | 5.0                 | 2.5       | 0.6       | TE           | 4000                          | 5.35±0.2    | 2.9±0.1   | 12.0±0.1 | 4.0±0.1  | 1.0±0.15                  | 180       |
| PS             | I       | 10.0                | 5.2       | 1.6       | TEB          | 3000                          | 10.4±0.1    | 5.6±0.1   | 24       | 8        | 2.0±0.1                   | 329       |
|                | E       | 6.4                 | 6.4       | 0.65      | TE           | 2000                          | 6.8±0.1     | 6.8±0.1   | 12       | 8        | 1.0±0.1                   | 178       |
| TSL            | 1       | 6.3                 | 3.1       | 1         | TE           | 3000                          | 6.6±0.1     | 3.4±0.1   | 12.0±0.1 | 4.0±0.1  | 1.3±0.1                   | 180       |
| NPR            | 1       | 7.5                 | 4.5       | 2         | TE           | 1000                          | 7.9±0.1     | 4.8±0.1   | 16       | 8.2±0.2  | 2.45±0.1                  | 178       |
|                | 2       | 12                  | 8         | 4         | TEB          | 1000                          | 13±0.1      | 9±0.1     | 24       | 102      | 4.35±0.1                  | 330       |
| CSR            | 1       | 10.8                | 6.2       | 2.1       | TE           | 1000                          | 11.1±0.14   | 6.7±0.1   | 24       | 12.0±0.1 | 2.6±0.1                   | 255       |
|                | 2       | 12.8±0.5            | 8.2±0.3   | 3.1±0.2   | TE           | 1000                          | 13.0±0.1    | 9.0±0.15  | 24       | 12.0±0.1 | 4.35±0.1                  | 330       |
| CZB            | 1E      | 1.0±0.1             | 0.5±0.1   | 0.5±0.1   | TP           | 10000                         | 1.17±0.1    | 0.65±0.1  | 8.0±0.22 | 2.0±0.23 | 0.63±0.1                  | 178       |
|                | 1J      | 1.6±0.15            | 0.8±0.15  | 0.8±0.15  | TD           | 4000                          | 1.8±0.1     | 1.1±0.1   | 8.1±0.1  | 4.0±0.1  | 1.1±0.1                   | 178       |
| CZP            | 2A      | 2.0±0.2             | 1.25±0.2  | 0.9±0.2   | TD           | 2000/4000*                    | 2.4±0.1     | 1.6±0.1   | 8.1±0.1  | 4.0±0.1  | 1.2±0.1                   | 178       |
|                | 2B      | 3.2±0.2             | 1.6±0.2   | 0.51±0.25 | TE           | 3000                          | 3.5±0.1     | 1.8±0.1   | 8.1±0.1  | 4.0±0.1  | 1.8±0.1                   | 178       |
| MHL            | 1E      | 1.0±0.1             | 0.5±0.1   | 0.5±0.1   | TP           | 10000                         | 1.17±0.1    | 0.67±0.1  | 8.0±0.22 | 2.0±0.23 | 0.63±0.1                  | 178       |
|                | 1J      | 1.6±0.15            | 0.8±0.15  | 0.8±0.15  | TD           | 4000                          | 1.85±0.1    | 1.15±0.1  | 8.0±0.1  | 4.0±0.1  | 1.1±0.1                   | 178       |
| MCA            | 1E4     | 2.0±0.15            | 1.25±0.15 | 0.6±0.1   | TE           | 4000                          | 2.2±0.1     | 1.45±0.1  | 8.0±0.2  | 4.0±0.1  | 2.0±0.1                   | 180       |
|                | 1J4     | 3.2±0.15            | 1.6±0.15  | 0.8±0.1   | TD           | 4000                          | 3.5±0.15    | 1.9±0.15  | 8.0±0.2  | 4.0±0.1  | 2.5±0.1                   | 180       |
| KGM            | 0603    | 1.6±0.2             | 0.8±0.2   | 0.6±0.2   | TE           | 4000                          | 1.9±0.05    | 1.1±0.05  | 8.0±0.1  | 4.0±0.1  | 2.5 max.                  | 178       |
|                | 0805    | 2.0±0.2             | 1.25±0.2  | 0.8±0.2   | TE           | 4000                          | 2.2±0.1     | 1.5±0.1   | 8.0±0.3  | 4.0±0.1  | 2.5 max.                  | 178       |
|                | 1206    | 3.2±0.2             | 1.6±0.2   | 0.8±0.2   | TE           | 2000                          | 3.5±0.1     | 2.0±0.1   | 8.0±0.3  | 4.0±0.1  | 2.5 max.                  | 178       |
|                | 1812    | 4.5±0.3             | 3.2±0.3   | 1.0±0.2   | TE           | 1000                          | 4.9±0.1     | 3.5±0.2   | 12.0±0.3 | 4.0±0.1  | 2.5 max.                  | 178       |
| FBA            | 1J      | 3.2±0.2             | 1.6±0.2   | 0.8±0.2   | TE           | 3000                          | 3.5±0.1     | 1.8±0.1   | 8.1±0.1  | 4.0±0.1  | 1.2±0.1                   | 178       |
| NV73<br>NV73DL | 1H      | 0.6                 | 0.3       | 0.3       | TBM          | 15000                         | 0.68±0.02   | 0.38±0.02 | 8.0±0.2  | 4.0±0.2  | 1.75 max.                 | 180       |
|                | 1E      | 1.0±0.1             | 0.5±0.1   | 0.25±0.15 | TP           | 10000                         | 1.15±0.1    | 0.65±0.1  | 8.0±0.2  | 4.0±0.1  | 0.6±0.2                   | 180       |
|                | 1J      | 1.6±0.15            | 0.8±0.15  | 0.8±0.15  | TE           | 2500                          | 1.9±0.1     | 1.2±0.1   | 8.0±0.2  | 4.0±0.1  | 1.75 max.                 | 180       |
|                | 2A      | 2.0±0.2             | 1.25±0.2  | 1.3 max.  | TE           | 2500                          | 2.4±0.1     | 1.6±0.1   | 8.0±0.2  | 4.0±0.1  | 1.75 max.                 | 180       |
|                | 2B      | 3.2±0.2             | 1.6±0.2   | 1.65 max. | TE           | 2500                          | 3.6±0.1     | 2.0±0.1   | 8.0±0.2  | 4.0±0.1  | 1.75 max.                 | 180       |
|                | 2E      | 3.2                 | 2.5       | 1.5 max.  | TE           | 2000                          | 3.5±0.1     | 2.85±0.1  | 8.0±0.2  | 4.0±0.2  | 1.55 max.                 | 180       |
|                | 2J      | 4.5                 | 3.2       | 2.0 max.  | TE           | 1000                          | 4.9±0.1     | 3.6±0.1   | 12.0±0.2 | 8.0±0.2  | 2.05 max.                 | 180       |
| LR72           | 2L      | 5.7                 | 5.0       | 2.5 max.  | TE           | 1000                          | 6.0±0.1     | 5.4±0.1   | 12.0±0.2 | 8.0±0.2  | 2.60 max.                 | 180       |
|                | A       | 10±0.2              | 5.2       | 2         | TED          | 2000                          | 1.45±0.2    | 5.7±0.2   | 2.0±0.05 | 8.0±0.10 | 2.3±0.2                   | 255       |
|                | B       | 10±0.2              | 3         | 2         | TED          | 2000                          | 1.45±0.2    | 3.4±0.2   | 2.0±0.05 | 8.0±0.10 | 2.5±0.2                   | 255       |
| HFC            | C       | 11.2±0.4            | 3.2±0.4   | 3.5±0.4   | TEB          | 1500                          | 1.17±0.1    | 4.3±0.1   | 24±0.2   | 8.0±0.1  | 4.4±0.15                  | 330       |
|                | 1005    | 1.0±0.15            | 0.5±0.1   | 0.5±0.1   | T            | 10000                         | 1.15±0.03   | 0.65±0.03 | 8.0±0.10 | 2.0±0.05 | 0.60±0.05                 | 178       |
|                | 1410    | 1.4±0.15            | 1.0±0.1   | 1.0±0.1   | TE           | 3000                          | 1.60±0.05   | 1.20±0.05 | 8.0±0.20 | 4.0±0.10 | 1.20±0.10                 | 178       |
|                | 1608    | 1.6±0.15            | 0.8±0.1   | 0.7±0.2   | TE           | 4000                          | 1.80±0.05   | 1.00±0.05 | 8.0±0.20 | 4.0±0.10 | 0.75 or 0.95±0.10         | 178       |
|                | 1610    | 1.6±0.15            | 1.0±0.1   | 0.85±0.25 | TE           | 3000                          | 1.80±0.05   | 1.20±0.05 | 8.0±0.20 | 4.0±0.10 | 0.80 or 1.00 or 1.20±0.10 | 178       |
| KC             | 1612    | 1.6±0.15            | 1.2±0.1   | 1.1±0.2   | TE           | 3000                          | 1.80±0.05   | 1.40±0.05 | 8.0±0.20 | 4.0±0.10 | 1.40±0.10                 | 178       |
|                | 1J      | 1.6±0.2             | 0.8±0.2   | 0.6±0.2   | TD           | 4000                          | 1.9±0.05    | 1.1±0.05  | 8.0±0.1  | 4.0±0.1  | 0.75±0.04                 | 178       |
|                | 2AF     | 2.0±0.2             | 1.25±0.2  | 0.8±0.2   | TD           | 4000                          | 2.3±0.1     | 1.55±0.1  | 8.0±0.2  | 4.0±0.1  | N/A                       | 178       |
|                | 2A      | 2.0±0.2             | 1.25±0.2  | 1.6±0.2   | TE           | 2000                          | 2.3±0.1     | 1.55±0.1  | 8.0±0.2  | 4.0±0.1  | 1.9±0.1                   | 178       |
| KCR            | 2B      | 3.2±0.3             | 1.6±0.3   | 2.5±0.3   | TE           | 1500                          | 3.5±0.1     | 2.0±0.1   | 8.0±0.2  | 4.0±0.1  | 2.7±0.1                   | 178       |
|                | 1206    | 3.2±0.2             | 1.6±0.2   | 0.8±0.2   | TE           | 2000                          | 3.5±0.1     | 2.0±0.1   | 8.0±0.3  | 4.0±0.1  | 2.5 max.                  | 178       |
| TF             | 10      | 1.00                | 0.5       | 0.45      | TB           | 10000                         | 1.15±0.05   | 0.65±0.05 | 8.0±0.2  | 4.0±0.1  | 0.6+0.2/-0                | 178       |
|                | 16      | 1.60                | 0.8       | 0.6       | TD           | 5000                          | 1.9±0.1     | 1.1±0.1   | 8.0±0.3  | 4.0±0.1  | 0.9±0.1                   | 180       |
| CCP            | 2B      | 3.20                | 1.6       | 1.2       | TE           | 3000                          | 3.5±0.1     | 1.9±0.1   | 8.0±0.3  | 4.0±0.1  | 1.5±0.1                   | 178       |
|                | 2E      | 3.20                | 2.5       | 2.2       | TE           | 2000                          | 3.5±0.1     | 2.8±0.1   | 8.0±0.3  | 4.0±0.1  | 2.4±0.1                   | 178       |
| CCF            | 1N,1F   | 6.0                 | 2.5       | 2.5       | TE           | 1000                          | 6.4±0.2     | 2.7±0.2   | 12.0±0.3 | 4.0±0.1  | 2.9±0.2                   | 178       |
| CR             | 1J10    | 3.2±0.1             | 1.6±0.1   | 0.65±0.1  | TE           | 4000                          | 3.5±0.1     | 2.0±0.1   | 8.0±0.2  | 4.0±0.1  | 0.75+0.2/-0.1             | 178       |
|                | 2A10    | 4.0±0.2             | 2.1±0.2   | 0.7±0.1   |              |                               | 4.4±0.2     | 2.5±0.2   | 12.0±0.2 | 4.0±0.1  | 1.15±0.2                  | 178       |
| MRGF16         | -       | 11                  | 7.7       | 2.2       | TEB          | 2000                          | 11.7±0.2    | 8.2±0.2   | 24       | 12       | 2.4±0.1                   | 330       |
| PGD            | 1E      | 1.1                 | 0.75      | 0.75      | TE           | 4000                          | 3.5±0.1     | 1.2±0.1   | 8.0±0.3  | 4.0±0.1  | 0.9±0.05                  | 180       |
|                | 1J      | 1.6                 | 0.8       | 0.75      | TE           | 4000                          | 3.5±0.1     | 1.0±0.1   | 8.0±0.3  | 4.0±0.1  | 0.9±0.05                  | 180       |
| PGE            | 322     | 2.5                 | 1.25      | 1.7       | TE           | 3000                          | 3.3±0.1     | 1.6±0.1   | 8.0±0.3  | 4.0±0.1  | 1.1±0.05                  | 178       |
| BR             | 27A     | 9.0                 | 3.0       | 1.15      | TEB          | 4000                          | 9.3±0.1     | 3.3±0.1   | 24.0±0.3 | 8.0±0.1  | 1.8±0.2                   | 330       |
|                | 36S     | 9.0                 | 4.0       | 1.15      | TEB          | 4000                          | 9.3±0.1     | 3.3±0.1   | 24.0±0.3 | 8.0±0.1  | 1.8±0.2                   | 330       |
| PL             | 2520    | 2.5                 | 2.0       | 0.5       | TE           | 4000                          | 2.9±0.2     | 2.4±0.2   | 8.0±0.3  | 4.0±0.1  | 1.0±0.15                  | 180       |
|                | 3225    | 3.2                 | 2.5       | 0.5       | TE           | 4000                          | 3.5±0.2     | 3.0±0.2   | 8.0±0.3  | 4.0±0.1  | 1.0±0.15                  | 180       |
| SF             | 45      | 4.5                 | 3.2       | 0.5       | TE           | 2000                          | 5.0±0.1     | 3.6±0.1   | 12       | 8        | 1.06±0.1                  | 178       |

\* MCL2A: 0.047µH ~ 2.2µH = TD: 4,000 pcs/reel; 2.7µH ~ 10µH = TE: 3,000 pcs/reel  
 CZB2A: <2200Ω=TD:4,000; 2200Ω=TD: 2,000 pcs/reel

| Type  | Component Size (mm) |       |       | Carrier Tape | Quantity/ Reel (Pieces) | Taping (mm) |          |          |    |    | Reel Size |     |
|-------|---------------------|-------|-------|--------------|-------------------------|-------------|----------|----------|----|----|-----------|-----|
|       | L                   | W     | T     |              |                         | A           | B        | W        | P1 | T1 |           |     |
| AA(X) | T16                 | 5.0   | 6.4   | 1.0          | TEB                     | 2500        | 5.4±0.1  | 6.8±0.1  | 16 | 8  | 1.5±0.2   | 330 |
| AA(X) | T20                 | 6.5   | 6.4   | 1.0          | TEB                     | 2500        | 7.1±0.1  | 6.95±0.1 | 16 | 8  | 1.5±0.2   | 330 |
| AC(X) | T24                 | 7.8   | 6.4   | 1.0          | TEB                     | 2500        | 8.3±0.1  | 6.95±0.1 | 16 | 8  | 1.5±0.2   | 330 |
| AP(X) | Q16                 | 4.9   | 5.99  | 1.6          | TEB                     | 2500        | 5.3±0.1  | 6.5±0.1  | 12 | 8  | 2.5±0.2   | 330 |
| CTX   | Q20                 | 8.66  | 5.99  | 1.6          | TEB                     | 2500        | 9.0±0.1  | 6.5±0.1  | 16 | 8  | 2.5±0.2   | 330 |
| DNA   | Q24                 | 8.66  | 5.99  | 1.6          | TEB                     | 2500        | 9.0±0.1  | 6.5±0.1  | 16 | 8  | 2.5±0.2   | 330 |
| DN(X) | Q28                 | 10.0  | 5.99  | 1.6          | TEB                     | 2500        | 3.5±0.1  | 6.5±0.1  | 16 | 8  | 2.5±0.2   | 330 |
| EA(X) | N08                 | 4.83  | 5.99  | 1.6          | TEB                     | 2500        | 5.3±0.1  | 6.5±0.1  | 12 | 8  | 2.5±0.2   | 330 |
| ED(X) | N14                 | 8.66  | 5.99  | 1.6          | TEB                     | 2500        | 9.0±0.1  | 6.5±0.1  | 16 | 8  | 2.5±0.2   | 330 |
| RD(X) | N16                 | 9.91  | 5.99  | 1.6          | TEB                     | 2500        | 10.3±0.1 | 6.5±0.1  | 16 | 8  | 2.5±0.2   | 330 |
| R(X)A | W16                 | 10.44 | 10.36 | 2.4          | TEB                     | 1000        | 10.7±0.1 | 10.9±0.1 | 16 | 12 | 2.9±0.2   | 330 |
| RT(X) | W20                 | 12.7  | 10.36 | 2.4          | TEB                     | 1000        | 13.3±0.1 | 10.9±0.1 | 24 | 12 | 2.9±0.2   | 330 |
| TF(X) | S03                 | 2.92  | 2.30  | 0.95         | TE                      | 3000        | 2.77±0.1 | 3.15±0.1 | 8  | 4  | 1.3±0.2   | 180 |
| US(X) | S14                 | 2.92  | 2.30  | 0.95         | TE                      | 3000        | 3.5±0.1  | 3.15±0.1 | 8  | 4  | 1.3±0.2   | 180 |
|       | S05                 | 2.90  | 2.80  | 1.0          | TE                      | 3000        | 3.5±0.1  | 3.4±0.1  | 8  | 4  | 1.3±0.2   | 180 |
|       | S06                 | 2.90  | 2.80  | 1.0          | TE                      | 3000        | 3.5±0.1  | 3.4±0.1  | 8  | 4  | 1.3±0.2   | 180 |

### Packaging specifications



### marking

| KSE Part Designation |            | Color     |                    | Marking Type                |
|----------------------|------------|-----------|--------------------|-----------------------------|
|                      |            | Body      | Marking            |                             |
| RK73B                | 1F (01005) | Black     | None               | None                        |
|                      | 1H (0201)  | Black     | None               | None                        |
|                      | 1E (0402)  | Black     | None               | None                        |
|                      | 1J (0603)  | Black     | White              | 3 Digits                    |
|                      | 2A (0805)  | Black     | White              | 3 Digits                    |
|                      | 2B (1206)  | Black     | White              | 3 Digits                    |
|                      | 2E (1210)  | Black     | White              | 3 Digits                    |
|                      | 2H (2010)  | Black     | White              | 3 Digits                    |
|                      | 3A (2512)  | Black     | White              | 3 Digits                    |
| RK73Z                | 1H (0201)  | Green     | None               | None                        |
|                      | 1E (0402)  | Green     | None               | None                        |
|                      | 1J (0603)  | Black     | White              | 0                           |
|                      | 2A (0805)  | Black     | White              | 000                         |
|                      | 2B (1206)  | Black     | White              | 000                         |
|                      | 2E (1210)  | Black     | White              | 000                         |
|                      | 2H (2010)  | Black     | White              | 000                         |
| RK73H                | 1H (0201)  | Black     | None               | None                        |
|                      | 1E (0402)  | Blue      | None               | None                        |
|                      | 1J (0603)  | Blue      | Black              | E-24 3 Digits,<br>E-96 None |
|                      | 2A (0805)  | Blue      | Black              | 4 Digits                    |
|                      | 2B (1206)  | Blue      | Black              | 4 Digits                    |
|                      | 2E (1210)  | Blue      | Black              | 4 Digits                    |
|                      | 2H (2010)  | Blue      | Black              | 4 Digits                    |
| RK73G                | 1H (0201)  | Black     | None               | None                        |
|                      | 1E (0402)  | Black     | None               | None                        |
|                      | 1J (0603)  | Dark Blue | Black              | E-24 3 Digits<br>E-96 None  |
|                      | 2A (0805)  | Dark Blue | Black              | 4 Digits                    |
|                      | 2B (1206)  | Dark Blue | Black              | 4 Digits                    |
| RK73A                | 1J (0603)  | Black     | Light Blue         | 3 Digits                    |
|                      | 2A (0805)  | Black     | Light Blue         | 3 Digits                    |
|                      | 2B (1206)  | Black     | Light Blue         | 3 Digits                    |
| RK73N                | 1E (0402)  | Black     | None               | None                        |
|                      | 1J (0603)  | Black     | None               | None                        |
|                      | 2A (0805)  | Black     | None               | None                        |
|                      | 2B (1206)  | Black     | None               | None                        |
|                      | 2E (1210)  | Black     | None               | None                        |
|                      | 2H (2010)  | Black     | None               | None                        |
| RN73                 | 1E (0402)  | Black     | None               | None                        |
|                      | 1J (0603)  | Green     | Distinctive Colors | E-24 3 digits<br>E-96 None  |
|                      | 2A (0805)  | Green     | Distinctive Colors | 4 Digits                    |
|                      | 2B (1206)  | Green     | Distinctive Colors | 4 Digits                    |
|                      | 2H (2010)  | Green     | Distinctive Colors | 4 Digits                    |
| RN73H/<br>RN73S      | —          | Black     | Distinctive Colors | 4 Digits                    |
| HV73                 | —          | Black     | White              | 3 Digits                    |

| KSE Part Designation |           | Color    |              | Marking Type                    |          |
|----------------------|-----------|----------|--------------|---------------------------------|----------|
|                      |           | Body     | Marking      |                                 |          |
| WK73                 | —         | Black    | White        | 3 Digits                        |          |
| UR73                 | (D) 1E    | Indigo   | None         | None                            |          |
|                      | 1J        | Indigo   | White        | 4 Digits                        |          |
|                      | (D) 3A    | Indigo   | White        | 4 Digits                        |          |
|                      | (D) 2A    | Indigo   | White        | 4 Digits                        |          |
|                      | (D) 2B    | Indigo   | White        | 4 Digits                        |          |
|                      | (D) 2H    | Indigo   | White        | 4 Digits                        |          |
| SG73                 | —         | Red Wine | White        | 3 Digits                        |          |
| SG73P                | —         | Green    | White        | 3 Digits                        |          |
| CN                   | —         | Black    | White        | 3 Digits                        |          |
| CN_A                 | —         | Black    | White        | 3 Digits                        |          |
| CN_K                 | 1F, 1H    | Black    | None         | None                            |          |
|                      | 1E        | Black    | None         | None                            |          |
|                      | 1J        | Black    | White        | 3 Digits                        |          |
| CNB                  | —         | Black    | White        | 3 Digits +<br>pin number        |          |
| CND                  | —         | Black    | White        | 3 Digits                        |          |
| CNZ                  | —         | Black    | None         | None                            |          |
| CNN                  | —         | Green    | White        | 2 Digits                        |          |
| SR73                 | 1E (0402) | Indigo   | None         | None                            |          |
|                      | 1J (0603) | Indigo   | White        | 1%=4 Digits 2%,<br>5%=3 Digits  |          |
|                      | 2A (0805) | Indigo   | White        | 1%=4 Digits 2%,<br>5%=3 Digits  |          |
|                      | 2B (1206) | Indigo   | White        | 1%=4 Digits 2%,<br>5%=3 Digits  |          |
|                      | 2E (1210) | Indigo   | White        | 1%=4 Digits 2%,<br>5%=3 Digits  |          |
|                      | 2H (2010) | Indigo   | White        | 1%=4 Digits 2%,<br>5%=3 Digits  |          |
| SR73                 | 3A (2512) | Indigo   | White        | 1%=4 Digits 2%,<br>5%=3 Digits  |          |
|                      | SL1-3     | —        | Black        | White                           | 4 Digits |
|                      | TSL       | —        | Black        | White                           | 4 Digits |
| TLR                  | —         | Black    | White        | 4 Digits                        |          |
| LR72                 | —         | Silver   | None         | 3 Digits                        |          |
| NPR                  | —         | Black    | Teal         | 1%=4 Digits<br>5%, 10%=3 Digits |          |
| CSR                  | —         | Black    | White        | 3 Digits                        |          |
| RD41B                | —         | Ivory    | 3 color band | None                            |          |
| RN41                 | —         | Blue     | 3 color band | None                            |          |
| RM41                 | —         | Green    | 3 color band | None                            |          |
| MLT                  | —         | Gray     | 3 color band | None                            |          |
| CC                   | —         | Brown    | None         | None                            |          |
| CPCN                 | —         | Gray     | None         | None                            |          |
| RKC                  | —         | Black    | White        | 1%=4 Digits<br>2%, 5%=3 Digits  |          |
| RKH                  | —         | Black    | White        | 1%=4 Digits<br>2%, 5%=3 Digits  |          |
| RKL                  | —         | Black    | White        | 1%=4 Digits<br>2%, 5%=3 Digits  |          |
| MRP                  | —         | Black    | White        | Alphanumeric                    |          |
| MRS                  | —         | Black    | White        | Alphanumeric                    |          |
| LT73                 | —         | Bronze   | Black        | 4 Digits                        |          |
| LA73                 | —         | Orange   | Black        | 3 Digits                        |          |
| NT                   | 1J        | Pink     | —            | —                               |          |
|                      | 2A, 2B    | Pink     | Black        | 3 Digits                        |          |

### marking (continued)

| KSE Part Designation |           | Color       |              | Marking Type       |
|----------------------|-----------|-------------|--------------|--------------------|
|                      |           | Body        | Marking      |                    |
| PT72                 | 70°C      | Black       | None         | None               |
|                      | 80°C      | Brown       | None         | None               |
|                      | 100°C     | Blue        | None         | None               |
| RF73                 | —         | Brown       | Black        | 3 Digits           |
| CCP                  | —         | Black       | Yellow       | 2 Digits           |
| CCF                  | —         | White       | Black        | Alphanumeric       |
| TF                   | —         | Black       | White        | Letter Designation |
| NV73                 | —         | Black       | None         | None               |
| NV73A                | —         | Black       | None         | None               |
| NV73D                | —         | Black       | None         | None               |
| NVD                  | —         | Green       | Black        | Alphanumeric       |
| KL73                 | 1H (0201) | Green       | White        | Direction Only     |
|                      | 1E (0402) | Dark Blue   | Yellow       | Direction Only     |
|                      | 1J (0602) | Dark Blue   | Yellow       | Alphanumeric       |
|                      | 2A (0805) | Dark Blue   | Yellow       |                    |
|                      | 2B (1206) | Dark Blue   | Yellow       |                    |
| SDR                  | 0604      | Black       | Black        | 3 Digits           |
|                      | 0805      | Black       | Black        | 3 Digits           |
|                      | 1006      | Black       | Black        | 3 Digits           |
| MCL                  | —         | Black       | None         | None               |
| MHL                  | 1E        | Brown       | None         | None               |
|                      | 1J        | White       | Black Stripe | None               |
| KL32                 | —         | Black       | White        | 3 Digits           |
| KQ                   | 0603      | Black       | White        | 3 Digits           |
|                      | 0805      | Black       | White        | 3 Digits           |
|                      | 1008      | Black       | White        | 3 Digits           |
| KQ(T)                | 0402      | White       | None         | None               |
| KQC                  | 0402/0403 | White       | None         | None               |
|                      | 0603      | Black       | None         | None               |
| LP73                 | —         | Black       | White        | Alphanumeric       |
| PL                   | —         | Black       | White        | 3 Digits           |
| SDS                  | —         | Black       | Black        | 3 Digits           |
| MRGF                 | —         | Black       | White        | Alphanumeric       |
| BR                   | —         | Black       | White        | Alphanumeric       |
| PGD                  | —         | Black       | Black        | Letter Designation |
| LPC                  | —         | Black       | None         | None               |
| HFC                  | —         | Brown       | None         | None               |
| MCA                  | —         | Tan         | None         | None               |
| CZB/CZP              | —         | Black       | None         | None               |
| KGM                  | —         | Black       | None         | None               |
| KCR                  | —         | Black       | None         | None               |
| KC                   | 2A        | White/Black | None         | None               |
|                      | 1J, 2AF   | Brown/Black | None         | None               |
|                      | 2B        | White/Black | Black        | 2 Digit            |
| CR                   | 1J        | Green       | Yellow       | 3 Digit            |
|                      | 2A        | Green       | Yellow       | 3 Digit            |
| FBA                  | —         | Black       | None         | None               |
| SF                   | 45        | Green       | White        | K + Value          |

### significant figures of nominal resistance

| E-12 Decade Values |    |    |    |    |    |
|--------------------|----|----|----|----|----|
| 10                 | 12 | 15 | 18 | 22 | 27 |
| 33                 | 39 | 47 | 56 | 68 | 82 |

| E-24 Decade Values |    |    |    |    |    |
|--------------------|----|----|----|----|----|
| 10                 | 11 | 12 | 13 | 15 | 16 |
| 18                 | 20 | 22 | 24 | 27 | 30 |
| 33                 | 36 | 39 | 43 | 47 | 51 |
| 56                 | 62 | 68 | 75 | 82 | 91 |

| E-96 Decade Values |     |     |     |     |     |
|--------------------|-----|-----|-----|-----|-----|
| 100                | 102 | 105 | 107 | 110 | 113 |
| 115                | 118 | 121 | 124 | 127 | 130 |
| 133                | 137 | 140 | 143 | 147 | 150 |
| 154                | 158 | 162 | 165 | 169 | 174 |
| 178                | 182 | 187 | 191 | 196 | 200 |
| 205                | 210 | 215 | 221 | 226 | 232 |
| 237                | 243 | 249 | 255 | 261 | 267 |
| 274                | 280 | 287 | 294 | 301 | 309 |
| 316                | 324 | 332 | 340 | 348 | 357 |
| 365                | 374 | 383 | 392 | 402 | 412 |
| 422                | 432 | 442 | 453 | 464 | 475 |
| 487                | 499 | 511 | 523 | 536 | 549 |
| 562                | 576 | 590 | 604 | 619 | 634 |
| 649                | 665 | 681 | 698 | 715 | 732 |
| 750                | 768 | 787 | 806 | 825 | 845 |
| 866                | 887 | 909 | 931 | 953 | 976 |

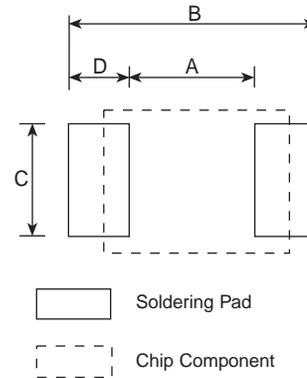
| E-192 Decade Values |     |     |     |     |     |
|---------------------|-----|-----|-----|-----|-----|
| 100                 | 101 | 102 | 104 | 105 | 106 |
| 107                 | 109 | 110 | 111 | 113 | 114 |
| 115                 | 117 | 118 | 120 | 121 | 123 |
| 124                 | 126 | 127 | 129 | 130 | 132 |
| 133                 | 135 | 137 | 138 | 140 | 142 |
| 143                 | 145 | 147 | 149 | 150 | 152 |
| 154                 | 156 | 158 | 160 | 162 | 164 |
| 165                 | 167 | 169 | 172 | 174 | 176 |
| 178                 | 180 | 182 | 184 | 187 | 189 |
| 191                 | 193 | 196 | 198 | 200 | 203 |
| 205                 | 208 | 210 | 213 | 215 | 218 |
| 221                 | 223 | 226 | 229 | 232 | 234 |
| 237                 | 240 | 243 | 246 | 249 | 252 |
| 255                 | 258 | 261 | 264 | 267 | 271 |
| 274                 | 277 | 280 | 284 | 287 | 291 |
| 294                 | 298 | 301 | 305 | 309 | 312 |
| 316                 | 320 | 324 | 328 | 332 | 336 |
| 340                 | 344 | 348 | 352 | 357 | 361 |
| 365                 | 370 | 374 | 379 | 383 | 388 |
| 392                 | 397 | 402 | 407 | 412 | 417 |
| 422                 | 427 | 432 | 437 | 442 | 448 |
| 453                 | 459 | 464 | 470 | 475 | 481 |
| 487                 | 493 | 499 | 505 | 511 | 517 |
| 523                 | 530 | 536 | 542 | 549 | 556 |
| 562                 | 569 | 576 | 583 | 590 | 597 |
| 604                 | 612 | 619 | 626 | 634 | 642 |
| 649                 | 657 | 665 | 673 | 681 | 690 |
| 698                 | 706 | 715 | 723 | 732 | 741 |
| 750                 | 759 | 768 | 777 | 787 | 796 |
| 806                 | 816 | 825 | 835 | 845 | 856 |
| 866                 | 876 | 887 | 898 | 909 | 920 |
| 931                 | 942 | 953 | 965 | 976 | 988 |

### standard soldering pad dimensions

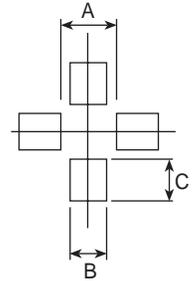
The optimum soldering pad dimensions may differ depending on soldering conditions, however, the following land dimensions are generally recommended.

| Type   | Style | Dimensions millimeters |           |      |      |       |      |
|--------|-------|------------------------|-----------|------|------|-------|------|
|        |       | Component Size         | A         | B    | C    | D     |      |
| WK73   | 2H    | 2.5 X 5.0              | 1.0       | 3.5  | 5.0  | 1.25  |      |
|        | 2J    | 3.1 X 4.6              | 1.6       | 3.9  | 4.75 | 1.15  |      |
|        | 3A    | 3.1 X 6.4              | 1.6       | 3.9  | 6.4  | 1.15  |      |
| RK73   | 1F    | 0.4 X 0.2              | 0.12      | 0.48 | 0.18 | 0.18  |      |
| SG73   | 1H    | 0.6 X 0.3              | 0.25      | 0.7  | 0.3  | 0.225 |      |
| RN73   | 1E    | 1.0 X 0.5              | 0.5       | 1.3  | 0.3  | 0.4   |      |
| RN73H  | 1J    | 1.6 X 0.8              | 1.0       | 2.0  | 0.6  | 0.5   |      |
| SR73   | 2A    | 2.0 X 1.25             | 1.3       | 2.5  | 1.05 | 0.6   |      |
| LT73   | 2B    | 3.2 X 1.6              | 2.2       | 4.0  | 1.4  | 0.9   |      |
| NT73   | 2E    | 3.2 X 2.5              | 2.2       | 4.0  | 2.3  | 0.9   |      |
| PT72   | 2H    | 5.0 X 2.5              | 3.3       | 6.1  | 2.3  | 1.4   |      |
| LA73   | 3A    | 6.4 X 3.2              | 4.6       | 8.0  | 3.0  | 1.7   |      |
| RF73   | 1     | 6.3 X 3.1              | 3.4       | 8.0  | 3.0  | 2.3   |      |
| KL73   |       | 11.5 X 7.0             | 5.4       | 15.0 | 5.0  | 4.8   |      |
| HV73   | 2     | 11.5 X 7.0             | 5.0       | 15.0 | 6.0  | 5.0   |      |
| LP73   | 1     | 7.5 X 4.5              | 4.0       | 10.0 | 3.0  | 3.0   |      |
| SDT73  |       | 12.0 X 8.0             | 8.0       | 15.0 | 4.0  | 3.5   |      |
| SL/TSL | 2E    | 3.2 X 2.5              | 2.2       | 5.0  | 2.0  | 1.4   |      |
|        | 2B    | 3.2 X 1.6              | 2.2       | 5.0  | 1.4  | 1.4   |      |
| CCP    | 1N    | 6.0 X 2.5              | 3.0       | 7.2  | 2.8  | 2.1   |      |
| CCF    | 1F    | 6.0 X 2.5              | 3.2       | 8.8  | 5.0  | 2.8   |      |
|        | 4045  | 4.5 X 4.0              | 1.5       | 5.1  | 3.5  | 1.8   |      |
| LPC    | 4325  | 4.5 X 4.2              | 1.9       | 5.5  | 2.6  | 1.8   |      |
|        | 9040N | 9.0 X 4.8              | 4.0       | 2.6  | 3.0  | —     |      |
|        | 10065 | 10.0 X 10.4            | 5.0       | 13.0 | 6.0  | 4.0   |      |
|        | 12065 | 12 X 12.4              | 5.0       | 15.0 | 7.5  | 5.0   |      |
| KL     | 32    | 3.2 X 2.5              | 2.2       | 5.0  | 2.0  | 1.4   |      |
| KQT    | 0402  | 1.0 X 0.5              | 0.46      | 1.18 | 0.66 | 0.36  |      |
| KQ     | 0603  | 1.6 X 1.0              | 0.64      | 1.92 | 1.02 | 0.64  |      |
|        | KQC   | 0805                   | 2.0 X 1.5 | 0.76 | 2.8  | 1.78  | 1.02 |
|        |       | 1008                   | 2.5 X 2.2 | 1.27 | 3.31 | 2.54  | 1.02 |
| CZB    | 1E    | 0.50 X 0.10            | 0.4       | 1.6  | 0.6  | —     |      |
| CZP    | 1J    | 0.80 X 1.6             | 0.55      | 2.6  | 0.94 | —     |      |
| MHL    | 2A    | 1.25 X 2.0             | 0.66      | 3.0  | 1.45 | —     |      |
| MCL    | 2B    | 1.6 X 3.2              | 1.5       | 4.4  | 1.8  | —     |      |
| SDR    | 0604  | 5.6 X 4.5              | 1.7       | 6.0  | 5.8  | —     |      |
|        | 0805  | 7.5 X 7.5              | 2.4       | 7.8  | 8.0  | 2.7   |      |
|        | 1006  | 9.5 X 9.5              | 2.8       | 10.0 | 10.0 | 3.6   |      |
| TF     | 10    | 1.0 X 0.5              | 0.5       | 1.3  | 0.3  | 0.4   |      |
|        | 16    | 1.6 X 0.8              | 1.0       | 2.0  | 0.6  | 0.5   |      |

### Flat Type Components



### LPC 9040N



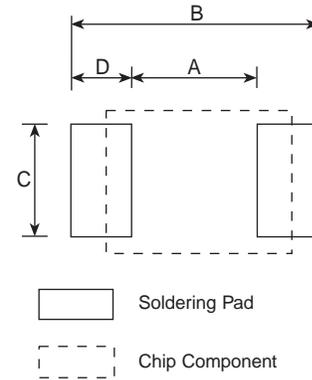
| Type  | Style         | Dimensions millimeters |      |      |      |       |
|-------|---------------|------------------------|------|------|------|-------|
|       |               | Component Size         | A    | B    | C    | D     |
| TLR   | 2BN, 2B       | 3.2 X 1.6              | 1.4  | 4.0  | 1.8  | 1.3   |
|       | 2H(1mΩ)       | 5.0 X 2.5              | 1.0  | 6.1  | 3.0  | 2.55  |
|       | 2H(2mΩ-6mΩ)   | 5.0 X 2.5              | 1.3  | 6.1  | 3.0  | 2.4   |
|       | 2H(7mΩ-8mΩ)   | 5.0 X 2.5              | 3.3  | 6.1  | 3.0  | 1.4   |
|       | 3A(1mΩ)       | 6.35 X 3.18            | 1.45 | 7.55 | 3.83 | 3.05  |
|       | 3A(2mΩ)       | 6.35 X 3.18            | 3.45 | 7.55 | 3.83 | 2.05  |
|       | 3A(3mΩ)       | 6.35 X 3.18            | 2.45 | 7.55 | 3.83 | 2.70  |
|       | 3A(4mΩ)       | 6.35 X 3.18            | 3.45 | 7.55 | 3.83 | 2.05  |
|       | 3AW(1mΩ-4mΩ)  | 6.35 X 3.18            | 1.45 | 7.55 | 3.83 | 3.05  |
|       | 3AW(5mΩ-8mΩ)  | 6.35 X 3.18            | 3.45 | 7.55 | 3.83 | 2.05  |
| UR73  | 3AW(9mΩ-10mΩ) | 6.35 X 3.18            | 4.40 | 7.55 | 3.83 | 1.575 |
|       | 2A            | 2.0 X 1.25             | 1.3  | 3.1  | 1.25 | 0.9   |
| UR73D | 2B            | 3.2 X 1.6              | 2.2  | 4.4  | 1.6  | 1.1   |
|       | 1E            | 1.0 X 0.5              | 0.5  | 1.8  | 0.5  | 0.65  |
|       | 1J            | 1.6 X 0.8              | 0.5  | 2.5  | 0.9  | 1.0   |
|       | 2A            | 2.0 X 1.25             | 0.8  | 3.4  | 1.3  | 1.3   |
|       | 2B            | 3.2 X 1.6              | 1.2  | 4.6  | 1.8  | 1.7   |
|       | 2H(10m-30mΩ)  | 5.0 X 2.5              | 1.8  | 6.1  | 2.6  | 2.5   |
|       | 2H(33m-100mΩ) | 5.0 X 2.5              | 3.3  | 6.1  | 2.5  | 1.4   |
|       | 3A(10m-30mΩ)  | 6.4 X 3.2              | 2.3  | 8.0  | 3.3  | 1.7   |
|       | 3A(33m-100mΩ) | 6.4 X 3.2              | 4.6  | 8.0  | 3.0  | 1.7   |

## standard soldering pad dimensions (continued)

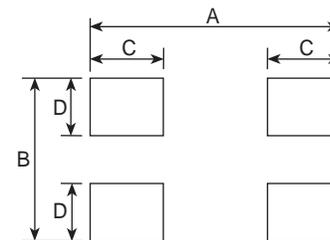
The optimum soldering pad dimensions may differ depending on soldering conditions, however, the following land dimensions are generally recommended.

| Type           | Style | Dimensions millimeters |           |           |           |         |
|----------------|-------|------------------------|-----------|-----------|-----------|---------|
|                |       | Component Size         | A         | B         | C         | D       |
| NV73<br>NV73DL | 1H    | 0.6 X 0.3              | 0.25-0.35 | 0.65-0.95 | 0.25-0.35 | 0.2-0.3 |
|                | 1E    | 1.0 X 0.5              | 0.51      | 1.73      | 0.51      | 0.61    |
|                | 1J    | 1.6 X 0.8              | 1.0       | 3.0       | 1.2       | 1.0     |
|                | 2A    | 2.0 X 1.25             | 1.2       | 4.0       | 1.0       | 1.4     |
|                | 2B    | 3.2 X 1.6              | 2.2       | 5.0       | 1.3       | 1.4     |
|                | 2E    | 3.2 X 2.5              | 2.2       | 5.0       | 2.2       | 1.4     |
|                | 2J    | 4.5 X 3.2              | 3.0       | 5.8       | 2.9       | 1.4     |
|                | 2L    | 5.7 X 5.0              | 4.5       | 7.5       | 4.7       | 1.5     |
| PL             | 2520  | 2.5 X 2.0              | 1.3       | 3.3       | 1.8       | 1.0     |
|                | 3225  | 3.2 X 2.5              | 2.2       | 4.0       | 2.3       | 0.9     |
| SDS            | 0804  | 8.0 X 10.5             | 5.7       | 10.5      | 2.2       | 2.4     |
|                | 0805  | 8.0 X 10.5             | 5.7       | 10.5      | 2.2       | 2.4     |
|                | 1003  | 10.0 X 12.7            | 7.3       | 13.3      | 2.8       | 3.0     |
|                | 1005  | 10.0 X 12.7            | 7.3       | 13.3      | 2.8       | 3.0     |
|                | 0908  | 9.5 X 10.5             | 10.3      | 14.7      | 9.0       | 2.2     |
|                | 1205  | 12.7 X 12.7            | 6.0       | 14.0      | 7.0       | 4.0     |
|                | 1206  | 12.7 X 12.7            | 6.0       | 14.0      | 7.0       | 4.0     |
|                | 1208  | 12.7 X 12.7            | 6.0       | 14.0      | 7.0       | 4.0     |
| PGD            | 1E    | —                      | 0.016     | 0.016     | 0.020     | 0.052   |
|                | 1J    | —                      | 0.024     | 0.022     | 0.020     | 0.064   |
| PS             | I     | 10.0 X 5.2             | 5.6       | 11.0      | 6.2       | 2.7     |
|                | E     | 6.4 X 6.4              | 1.4       | 7.6       | 7.0       | 3.1     |
| SLF            | 0905  | —                      | 9.5       | 3.74      | 2.0       | 1.2     |

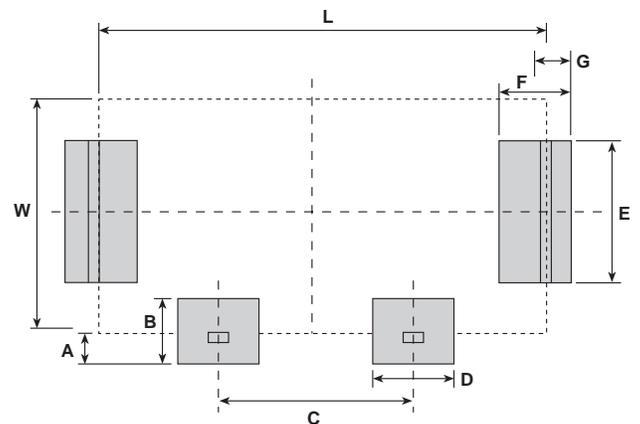
### Flat Type Components



### SLF



### CSR



## current sense resistor—CSR

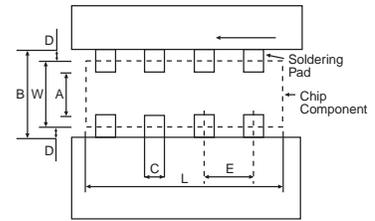
| Type | Dimensions inches (mm) |               |               |               |               |               |               |               |                |
|------|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
|      | L                      | W             | A             | B             | C             | D             | E             | F             | G              |
| CSR1 | .393<br>(10.0)         | .236<br>(6.0) | .039<br>(1.0) | .078<br>(2.0) | .196<br>(5.0) | .062<br>(1.6) | .118<br>(3.0) | .078<br>(2.0) | .039<br>(1.0)  |
| CSR2 | .472<br>(12.0)         | .314<br>(8.0) | .062<br>(1.6) | .125<br>(3.2) | .236<br>(6.0) | .086<br>(2.2) | .208<br>(5.3) | .090<br>(2.3) | .045<br>(1.15) |

### resistor arrays—CN

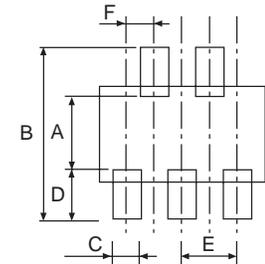
| Type | Style        | Dimensions     |         |     |     |      |      |      |     |
|------|--------------|----------------|---------|-----|-----|------|------|------|-----|
|      |              | Component Size |         | A   | B   | C    | D    | E    |     |
|      |              | L              | W       |     |     |      |      |      |     |
| CN   | 1E2K<br>1E4K | 0.5 X n        | 1.0     | 0.5 | 1.5 | 0.4  | 0.25 | 0.67 |     |
|      |              |                |         |     |     |      |      |      |     |
|      |              | 1F8K           | 3.8     | 1.6 | 1.0 | 2.6  | 0.3  | 0.5  | 0.5 |
|      |              | 1JA/K          | 0.8 X n | 1.6 | 1.0 | 2.6  | 0.6  | 0.5  | 0.8 |
|      |              | 2B4A           |         |     |     |      |      |      |     |
|      |              | 1J             | 0.8 X n | 1.6 | 0.8 | 2.6  | 0.4  | 0.5  | 0.8 |
|      | 2A           | 2.0            |         |     |     |      |      |      |     |
|      | 2B           | 1.27 X n       | 3.2     | 2.2 | 4.2 | 0.65 | 0.5  | 1.27 |     |
|      |              |                |         |     |     |      |      |      |     |
| CND  | 1J10K        | 3.2            | 1.6     | 0.9 | 2.6 | 0.4  | 0.5  | 0.64 |     |
|      | 2B10         | 6.4            | 3.1     | 2.1 | 4.1 | 0.6  | 0.5  | 1.27 |     |
| CNN  | 2A           | 2.54           | 2.0     | 1.2 | 2.8 | 0.6  | 0.4  | 1.27 |     |

| Type | Style | Dimensions     |     |     |     |     |       |      |     |
|------|-------|----------------|-----|-----|-----|-----|-------|------|-----|
|      |       | Component Size | A   | B   | C   | D   | E     | F    | G   |
| CND  | 1J10Y | 3.2 X 1.6      | 0.9 | 2.3 | 0.3 | 0.7 | 0.635 | 2.45 | 0.4 |
| CND  | 2A10Y | 4.0 X 2.1      | 1.0 | 3.0 | 0.4 | 1.0 | 0.8   | 3.4  | 0.4 |
| CNB  | 2E5Z  | 3.2 X 2.5      | 1.7 | 3.9 | 0.5 | 1.1 | 1.0   | 0.5  | —   |
| CNB  | 2B9Z  | 6.4 X 3.2      | 2.4 | 4.6 | 0.5 | 1.1 | 1.3   | 0.65 | —   |

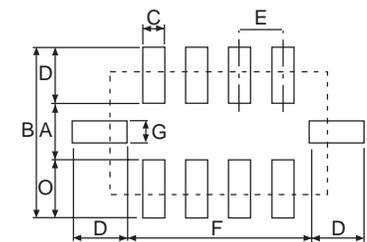
### Chip Networks



### CNB2E5Z, CNB2B9Z

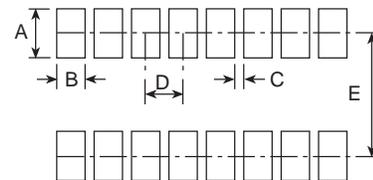


### CND1J10Y, CND2A10Y



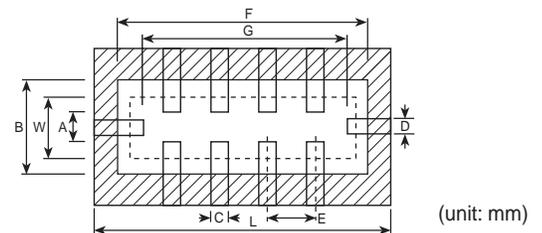
### thick film resistor—MRGF

| Type   | Dimensions     |      |      |      |      |      |
|--------|----------------|------|------|------|------|------|
|        | Component Size | A    | B    | C    | D    | E    |
| MRGF16 | 11.0 X 7.7     | 1.27 | 0.76 | 0.51 | 1.27 | 7.62 |



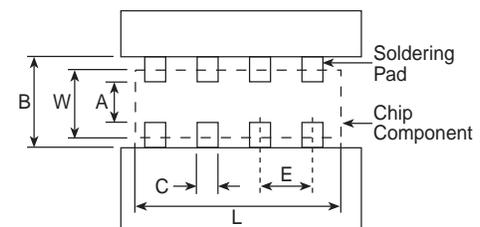
### chip resistor array—CR

| Dimensions inches (mm) |     |     |     |     |     |     |     |     |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| L                      | W   | A   | B   | C   | D   | E   | F   | G   |
| 1.6                    | .08 | .07 | .12 | .02 | .02 | .03 | .2  | .14 |
| 4.0                    | 2.1 | 1.7 | 3.1 | 0.4 | 0.4 | 0.8 | 5.1 | 3.5 |



### ferrite bead array—FBA

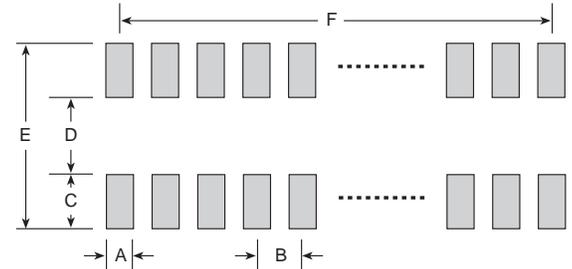
| Chip Size      | Dimensions inches (mm) |               |                 |                 |                 |                 |
|----------------|------------------------|---------------|-----------------|-----------------|-----------------|-----------------|
|                | Component Size         |               | A               | B               | C               | E               |
|                | L                      | W             |                 |                 |                 |                 |
| 1206<br>(3216) | .126<br>(3.2)          | .063<br>(1.6) | .030<br>(0.762) | .120<br>(3.048) | .016<br>(0.406) | .031<br>(0.787) |



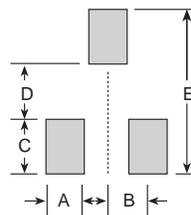
## integrated passive devices—SOIC, TSSOP, QSOP & SOT23

| Chip Size | Dimensions inches (mm) |                |                |                |                |                 |
|-----------|------------------------|----------------|----------------|----------------|----------------|-----------------|
|           | A                      | B              | C              | D              | E              | F               |
| N08       | .028<br>(0.7)          | .050<br>(1.27) | .094<br>(2.4)  | .098<br>(2.5)  | .287<br>(7.3)  | .150<br>(3.81)  |
| N14       | .028<br>(0.7)          | .050<br>(1.27) | .094<br>(2.4)  | .098<br>(2.5)  | .287<br>(7.3)  | .300<br>(7.62)  |
| N16       | .028<br>(0.7)          | .050<br>(1.27) | .094<br>(2.4)  | .098<br>(2.5)  | .287<br>(7.3)  | .350<br>(8.89)  |
| W16       | .028<br>(0.7)          | .050<br>(1.27) | .094<br>(2.4)  | .272<br>(6.9)  | .461<br>(11.7) | .350<br>(8.89)  |
| W20       | .028<br>(0.7)          | .050<br>(1.27) | .094<br>(2.4)  | .272<br>(6.9)  | .461<br>(11.7) | .450<br>(11.43) |
| Q16       | .012<br>(0.3)          | .025<br>(0.63) | .050<br>(1.27) | .180<br>(4.56) | .280<br>(7.1)  | .175<br>(4.45)  |
| Q20       | .012<br>(0.3)          | .025<br>(0.63) | .050<br>(1.27) | .180<br>(4.56) | .280<br>(7.1)  | .225<br>(5.72)  |
| Q24       | .012<br>(0.3)          | .025<br>(0.63) | .050<br>(1.27) | .180<br>(4.56) | .280<br>(7.1)  | .275<br>(6.99)  |
| Q28       | .012<br>(0.3)          | .025<br>(0.63) | .050<br>(1.27) | .180<br>(4.56) | .280<br>(7.1)  | .325<br>(8.26)  |
| SOT23     | .035<br>(0.9)          | .037<br>(0.95) | .055<br>(1.4)  | .031<br>(0.8)  | .141<br>(3.6)  | —               |
| S05       | .028<br>(0.7)          | .038<br>(0.97) | .043<br>(1.1)  | .055<br>(1.4)  | .141<br>(3.6)  | —               |
| S06       | .028<br>(0.7)          | .038<br>(0.97) | .043<br>(1.1)  | .063<br>(1.6)  | .141<br>(3.6)  | .076<br>(1.9)   |
| S14       | .028<br>(0.7)          | —              | .055<br>(1.4)  | .031<br>(0.81) | .141<br>(3.6)  | —               |

### SOIC, TSSOP, QSOP

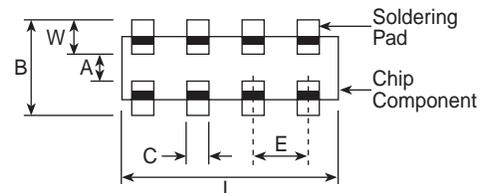


### SOT23



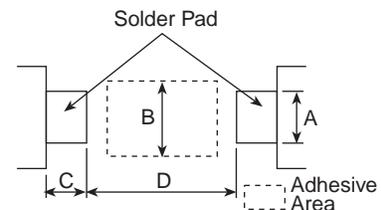
## capacitor arrays—MCA

| Chip Size | Dimensions inches (mm) |                       |                       |                       |                       |
|-----------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|           | Size W                 | A                     | B                     | C                     | E                     |
| 0402      | .012<br>(0.31 ± 0.10)  | —                     | .062<br>(1.59 ± 0.15) | .011<br>(0.28 ± 0.10) | .019<br>(0.50 ± 0.10) |
| 0603      | .035<br>(0.89 ± 0.10)  | .030<br>(0.76 ± 0.10) | .099<br>(2.54 ± 0.15) | .020<br>(0.45 ± 0.10) | .031<br>(0.80 ± 0.10) |

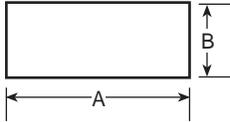


## melf type components—RD41, RN41, RM41, MLT, CC

| Type | Style    | Dimensions millimeters |     |     |     |     |
|------|----------|------------------------|-----|-----|-----|-----|
|      |          | Component Size         | A   | B   | C   | D   |
| RD41 | 2A 10    | 2.0 X 1.25             | 1.3 | 1.3 | 2.0 | 1.3 |
| RN41 | 2B,2E 12 | 3.5 X 1.45             | 1.5 | 2.2 | 1.5 | 2.0 |
| RM41 | 2D 20    | 3.2 X 1.55             | 1.5 | 2.2 | 1.5 | 2.0 |
| MLT  | 2E,2H 25 | 5.9 X 2.2              | 2.0 | 3.0 | 3.0 | 4.0 |



### other chips—RCS, RCT, RCU, RCW

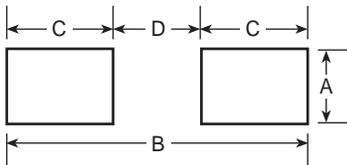


| Type | Dimensions millimeters |           |
|------|------------------------|-----------|
|      | A                      | B         |
| RCS  | 4.1-4.3                | 1.4-1.6   |
| RCT  | 2.9-3.1                | 1.05-1.25 |
| RCU  | 2.5-2.7                | 0.6-0.8   |
| RCW  | 4.1-4.3                | 1.4-1.6   |

### ceramic chip capacitors

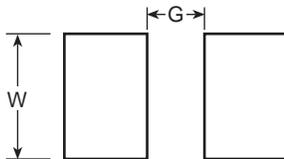
Component pads should be designed to achieve good solder fillets and minimize component movement during reflow soldering. Pad dimensions are given below for multilayer ceramic capacitors for both reflow and wave soldering. The basis for these designs is:

- Pad width equal to component width. It is permissible to decrease this to as low as 85% of component width but it is not advisable to go below this.
- Pad overlap 0.5mm beneath component
- Pad extension 0.5mm beyond components for reflow and 1.0mm for wave soldering



| Case Size | Dimensions inches (mm) |                |                |                |
|-----------|------------------------|----------------|----------------|----------------|
|           | A                      | B              | C              | D              |
| 0402      | 0.02<br>(0.50)         | 0.07<br>(1.70) | 0.02<br>(0.60) | 0.02<br>(0.50) |
| 0603      | 0.03<br>(0.75)         | 0.09<br>(2.30) | 0.03<br>(0.80) | 0.03<br>(0.70) |
| 0805      | 0.05<br>(1.25)         | 0.12<br>(3.00) | 0.04<br>(1.00) | 0.04<br>(1.00) |
| 1206      | 0.06<br>(1.60)         | 0.16<br>(4.00) | 0.04<br>(1.00) | 0.09<br>(2.00) |
| 1210      | 0.10<br>(2.50)         | 0.16<br>(4.00) | 0.04<br>(1.00) | 0.09<br>(2.00) |

### ceramic chip capacitors—HFC

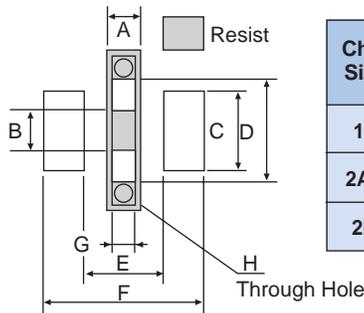


| Type | Part | Dimensions inches (mm) |                 |
|------|------|------------------------|-----------------|
|      |      | G                      | W               |
| HFC  | 1005 | 0.015<br>(0.40)        | 0.020<br>(0.50) |
|      | 1410 | 0.031<br>(0.80)        | 0.039<br>(1.00) |
|      | 1608 | 0.039<br>(1.00)        | 0.031<br>(0.80) |
|      | 1610 | 0.039<br>(1.00)        | 0.039<br>(1.00) |
|      | 1612 | 0.039<br>(1.00)        | 0.047<br>(1.20) |

### three-terminal inductor/capacitor—KC

#### Chip Mounting Side

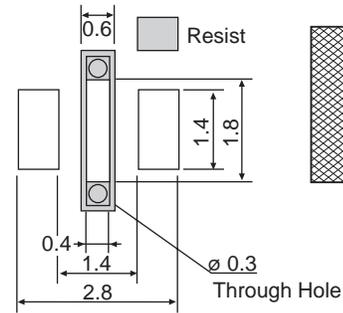
1J, 2AF, 2B



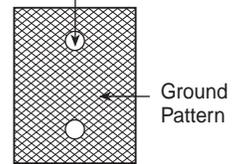
| Chip Size | Dimensions inches (mm) |               |               |               |               |               |               |               |
|-----------|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|           | A                      | B             | C             | D             | E             | F             | G             | H             |
| 1J        | .024<br>(0.6)          | .020<br>(0.5) | .039<br>(1.0) | .055<br>(1.4) | .047<br>(1.2) | .094<br>(2.4) | .016<br>(0.4) | .012<br>(0.3) |
| 2AF       | .024<br>(0.6)          | .028<br>(0.7) | .055<br>(1.4) | .071<br>(1.8) | .055<br>(1.4) | .110<br>(2.8) | .016<br>(0.4) | .012<br>(0.3) |
| 2B        | .040<br>(1.0)          | .055<br>(1.4) | .071<br>(1.8) | .110<br>(2.8) | .087<br>(2.2) | .157<br>(4.0) | .031<br>(0.8) | .020<br>(0.5) |

#### Back Side

2A

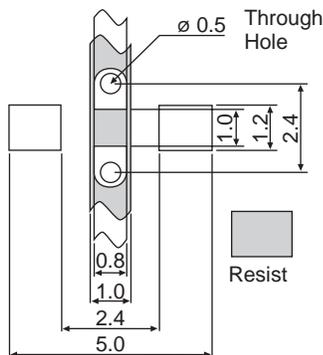


Connect to ground pattern of mounting side



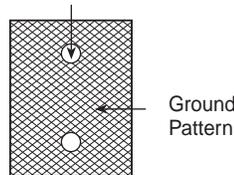
### three-terminal capacitor/resistor—KCR

#### Chip Mounting Side



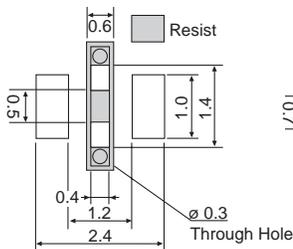
#### Back Side

Connect to ground pattern of mounting side

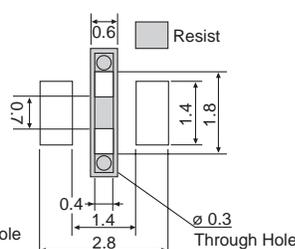


### three-terminal capacitor—KGM

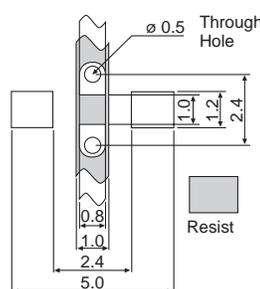
#### 0603 Chip Mounting Side



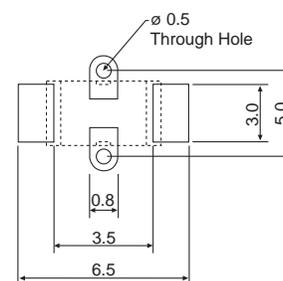
#### 0805 Chip Mounting Side



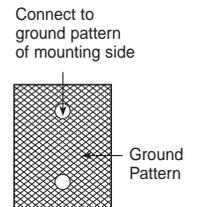
#### 1206 Chip Mounting Side



#### 1812 Chip Mounting Side



#### 0603, 0805, 1206, 1812 Back Side



(unit: mm)