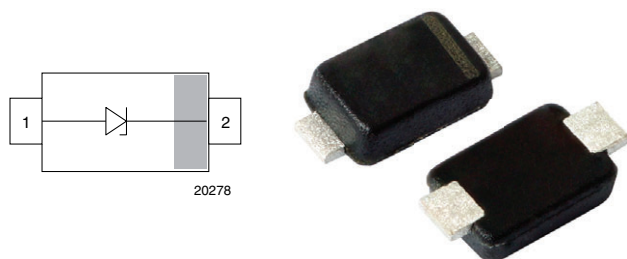


# Zener Diodes Permitting 500 mW Power Dissipation



## FEATURES

- Silicon planar Zener diodes, ultra small
- Low profile DO-219AC (MicroSMF) package
- Low leakage current
- Excellent stability
- High temperature soldering: 260 °C / 10 s at terminals
- Wave and reflow solderable (reflow as per JPC / JEDEC® J-STD 020) (double wave as per IEC 61760-1)
- AEC-Q101 qualified available
- Base P/N-G3 - RoHS-compliant, green, industrial grade
- Base P/N-HG3 - RoHS-compliant, green, AEC-Q101 qualified
- ESD immunity acc. IEC 61000-4-2 acc. to part table
- Surge performance acc. to part table
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

## PRIMARY CHARACTERISTICS

| PARAMETER                    | VALUE         | UNIT |
|------------------------------|---------------|------|
| V <sub>Z</sub> range nom.    | 2.0 to 39     | V    |
| Test current I <sub>ZT</sub> | 5 to 20       | mA   |
| V <sub>Z</sub> specification | Pulse current |      |
| Int. construction            | Single        |      |

## ORDERING INFORMATION

| DEVICE NAME | ORDERING CODE     | TAPED UNITS PER REEL         | MINIMUM ORDER QUANTITY |
|-------------|-------------------|------------------------------|------------------------|
| PLZ-Series  | Part number-G3/H  | 4500 per 7" reel (8 mm tape) | 22 500 / box           |
| PLZ-Series  | Part number-HG3/H |                              |                        |

## PACKAGE

| PACKAGE NAME        | WEIGHT | MOLDING COMPOUND FLAMMABILITY RATING | MOISTURE SENSITIVITY LEVEL        | SOLDERING CONDITIONS       |
|---------------------|--------|--------------------------------------|-----------------------------------|----------------------------|
| DO-219AC (MicroSMF) | 4.8 mg | UL 94 V-0                            | MSL level 1 (according J-STD-020) | 260 °C / 10 s at terminals |

## ABSOLUTE MAXIMUM RATINGS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

| PARAMETER                                   | TEST CONDITION                                                                                   | SYMBOL           | VALUE                            | UNIT |
|---------------------------------------------|--------------------------------------------------------------------------------------------------|------------------|----------------------------------|------|
| Power dissipation                           | Mounted on FR4 board 50 mm x 50 mm x 1.6 mm, solder land 10 mm x 10 mm, T <sub>amb</sub> = 85 °C | P <sub>tot</sub> | 500                              | mW   |
| Power dissipation                           | Mounted on FR4 board 50 mm x 50 mm x 1.6 mm, solder land 10 mm x 10 mm, T <sub>amb</sub> = 25 °C | P <sub>tot</sub> | 960                              |      |
| Power dissipation                           | Mounted on FR4 board with recommended soldering footpads (reflow)                                | P <sub>tot</sub> | 340                              |      |
| Non-repetitive peak surge power dissipation | t <sub>p</sub> = 8/20 μs acc. IEC 61000-4-5 (PLZ5V1A to PLZ39D)                                  | P <sub>ZSM</sub> | 100                              | W    |
|                                             | t <sub>p</sub> = 8/20 μs acc. IEC 61000-4-5 (PLZ2V0A to PLZ4V7C)                                 | P <sub>ZSM</sub> | 70                               | W    |
| Z-current                                   |                                                                                                  | I <sub>Z</sub>   | P <sub>tot</sub> /V <sub>Z</sub> | mA   |
| Junction temperature                        |                                                                                                  | T <sub>j</sub>   | 150                              | °C   |
| Storage temperature range                   |                                                                                                  | T <sub>stg</sub> | -55 to +150                      |      |

## THERMAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

| PARAMETER                                       | TEST CONDITION                                                         | SYMBOL            | VALUE | UNIT |
|-------------------------------------------------|------------------------------------------------------------------------|-------------------|-------|------|
| Typ. thermal resistance junction to ambient air | Mounted on FR4 board 50 mm x 50 mm x 1.6 mm, solder land 10 mm x 10 mm | R <sub>thJA</sub> | 130   | K/W  |
| Typ. thermal resistance junction to lead        |                                                                        | R <sub>thJL</sub> | 40    | K/W  |

## ELECTRICAL SPECIFICATIONS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

| PARAMETER       | TEST CONDITION         | SYMBOL         | MIN. | TYP. | MAX. | UNIT |
|-----------------|------------------------|----------------|------|------|------|------|
| Forward Voltage | I <sub>F</sub> = 10 mA | V <sub>F</sub> |      | 0.8  | 0.9  | V    |



| ELECTRICAL CHARACTERISTICS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified) |              |                                    |       |              |                 |     |                    |                                   |                                       |                             |
|---------------------------------------------------------------------------------------------------|--------------|------------------------------------|-------|--------------|-----------------|-----|--------------------|-----------------------------------|---------------------------------------|-----------------------------|
| PART NUMBER                                                                                       | MARKING CODE | ZENER VOLTAGE RANGE <sup>(1)</sup> |       | TEST CURRENT | REVERSE CURRENT |     | DYNAMIC RESISTANCE | PEAK PULSE CURRENT <sup>(2)</sup> | REVERSE CLAMPING VOLTAGE AT $I_{PPM}$ | ESD IMMUNITY <sup>(3)</sup> |
|                                                                                                   |              | $V_Z$ at $I_{ZT}$                  |       | $I_{ZT1}$    | $I_R$ at $V_R$  |     | $Z_Z$ at $I_{ZT}$  | $I_{PPM}$                         | $V_C$                                 | $V_{ESD}$                   |
|                                                                                                   |              | V                                  |       | mA           | $\mu\text{A}$   | V   | $\Omega$           | A                                 | V                                     | kV                          |
|                                                                                                   |              | MIN.                               | MAX.  |              | MAX.            |     | MAX.               |                                   | MAX.                                  | MAX.                        |
| PLZ2V0A                                                                                           | 2A0          | 1.88                               | 2.10  | 20           | 120             | 0.5 | 140                | 12.4                              | 5.65                                  | 20                          |
| PLZ2V0B                                                                                           | 2B0          | 2.02                               | 2.20  | 20           |                 |     |                    | 12.2                              | 5.71                                  | 20                          |
| PLZ2V2A                                                                                           | 2A2          | 2.12                               | 2.30  | 20           | 120             | 0.7 | 120                | 12.1                              | 5.76                                  | 20                          |
| PLZ2V2B                                                                                           | 2B2          | 2.22                               | 2.41  | 20           |                 |     |                    | 12.1                              | 5.77                                  | 20                          |
| PLZ2V4A                                                                                           | 2A4          | 2.33                               | 2.52  | 20           | 120             | 1.0 | 100                | 12.1                              | 5.78                                  | $\geq 30$                   |
| PLZ2V4B                                                                                           | 2B4          | 2.43                               | 2.63  | 20           |                 |     |                    | 12.1                              | 5.79                                  | $\geq 30$                   |
| PLZ2V7A                                                                                           | 2A7          | 2.54                               | 2.75  | 20           | 100             | 1.0 | 100                | 11.8                              | 5.91                                  | $\geq 30$                   |
| PLZ2V7B                                                                                           | 2B7          | 2.69                               | 2.91  | 20           |                 |     |                    | 11.7                              | 5.98                                  | $\geq 30$                   |
| PLZ3V0A                                                                                           | 3A0          | 2.85                               | 3.07  | 20           | 20              | 1.0 | 80                 | 11.6                              | 6.02                                  | $\geq 30$                   |
| PLZ3V0B                                                                                           | 3B0          | 3.01                               | 3.22  | 20           |                 |     |                    | 11.3                              | 6.18                                  | $\geq 30$                   |
| PLZ3V3A                                                                                           | 3A3          | 3.16                               | 3.38  | 20           | 10              | 1.0 | 70                 | 11.2                              | 6.22                                  | $\geq 30$                   |
| PLZ3V3B                                                                                           | 3B3          | 3.32                               | 3.53  | 20           |                 |     |                    | 11.1                              | 6.29                                  | $\geq 30$                   |
| PLZ3V6A                                                                                           | 3A6          | 3.455                              | 3.695 | 20           | 5               | 1.0 | 60                 | 10.9                              | 6.40                                  | $\geq 30$                   |
| PLZ3V6B                                                                                           | 3B6          | 3.60                               | 3.845 | 20           |                 |     |                    | 10.8                              | 6.47                                  | $\geq 30$                   |
| PLZ3V9A                                                                                           | 3A9          | 3.74                               | 4.10  | 20           | 5               | 1.0 | 50                 | 10.7                              | 6.54                                  | $\geq 30$                   |
| PLZ3V9B                                                                                           | 3B9          | 3.89                               | 4.16  | 20           |                 |     |                    | 10.6                              | 6.60                                  | $\geq 30$                   |
| PLZ4V3A                                                                                           | 4A3          | 4.04                               | 4.29  | 20           | 5               | 1.0 | 40                 | 10.5                              | 6.66                                  | $\geq 30$                   |
| PLZ4V3B                                                                                           | 4B3          | 4.17                               | 4.43  | 20           |                 |     |                    | 10.4                              | 6.73                                  | $\geq 30$                   |
| PLZ4V3C                                                                                           | 4C3          | 4.30                               | 4.57  | 20           |                 |     |                    | 10.3                              | 6.80                                  | $\geq 30$                   |
| PLZ4V7A                                                                                           | 4A7          | 4.44                               | 4.68  | 20           | 5               | 1.0 | 25                 | 10.1                              | 6.93                                  | $\geq 30$                   |
| PLZ4V7B                                                                                           | 4B7          | 4.55                               | 4.80  | 20           |                 |     |                    | 9.9                               | 7.06                                  | $\geq 30$                   |
| PLZ4V7C                                                                                           | 4C7          | 4.68                               | 4.93  | 20           |                 |     |                    | 9.4                               | 7.40                                  | $\geq 30$                   |
| PLZ5V1A                                                                                           | 5A1          | 4.81                               | 5.07  | 20           | 5               | 1.5 | 20                 | 12.3                              | 8.14                                  | $\geq 30$                   |
| PLZ5V1B                                                                                           | 5B1          | 4.94                               | 5.20  | 20           |                 |     |                    | 12.1                              | 8.23                                  | $\geq 30$                   |
| PLZ5V1C                                                                                           | 5C1          | 5.09                               | 5.37  | 20           |                 |     |                    | 11.9                              | 8.40                                  | $\geq 30$                   |
| PLZ5V6A                                                                                           | 5A6          | 5.28                               | 5.55  | 20           | 5               | 2.5 | 13                 | 11.6                              | 8.61                                  | $\geq 30$                   |
| PLZ5V6B                                                                                           | 5B6          | 5.45                               | 5.73  | 20           |                 |     |                    | 11.3                              | 8.82                                  | $\geq 30$                   |
| PLZ5V6C                                                                                           | 5C6          | 5.61                               | 5.91  | 20           |                 |     |                    | 11.1                              | 8.99                                  | $\geq 30$                   |
| PLZ6V2A                                                                                           | 6A2          | 5.78                               | 6.09  | 20           | 5               | 3.0 | 10                 | 10.7                              | 9.32                                  | $\geq 30$                   |
| PLZ6V2B                                                                                           | 6B2          | 5.96                               | 6.27  | 20           |                 |     |                    | 10.5                              | 9.45                                  | $\geq 30$                   |
| PLZ6V2C                                                                                           | 6C2          | 6.12                               | 6.44  | 20           |                 |     |                    | 10.3                              | 9.66                                  | $\geq 30$                   |
| PLZ6V8A                                                                                           | 6A8          | 6.29                               | 6.63  | 20           | 2               | 3.5 | 8                  | 9.7                               | 10.29                                 | $\geq 30$                   |
| PLZ6V8B                                                                                           | 6B8          | 6.49                               | 6.83  | 20           |                 |     |                    | 9.5                               | 10.50                                 | $\geq 30$                   |
| PLZ6V8C                                                                                           | 6C8          | 6.66                               | 7.01  | 20           |                 |     |                    | 9.4                               | 10.60                                 | $\geq 30$                   |
| PLZ7V5A                                                                                           | 7A5          | 6.85                               | 7.22  | 20           | 0.5             | 4.0 | 8                  | 9.0                               | 11.06                                 | $\geq 30$                   |
| PLZ7V5B                                                                                           | 7B5          | 7.07                               | 7.45  | 20           |                 |     |                    | 8.8                               | 11.34                                 | $\geq 30$                   |
| PLZ7V5C                                                                                           | 7C5          | 7.29                               | 7.67  | 20           |                 |     |                    | 8.6                               | 11.54                                 | $\geq 30$                   |
| PLZ8V2A                                                                                           | 8A2          | 7.53                               | 7.92  | 20           | 0.5             | 5.0 | 8                  | 8.4                               | 11.80                                 | $\geq 30$                   |
| PLZ8V2B                                                                                           | 8B2          | 7.78                               | 8.19  | 20           |                 |     |                    | 8.3                               | 12.00                                 | $\geq 30$                   |
| PLZ8V2C                                                                                           | 8C2          | 8.03                               | 8.45  | 20           |                 |     |                    | 7.9                               | 12.60                                 | $\geq 30$                   |
| PLZ9V1A                                                                                           | 9A1          | 8.29                               | 8.73  | 20           | 0.5             | 6.0 | 8                  | 7.8                               | 12.86                                 | $\geq 30$                   |
| PLZ9V1B                                                                                           | 9B1          | 8.57                               | 9.01  | 20           |                 |     |                    | 7.6                               | 13.17                                 | $\geq 30$                   |
| PLZ9V1C                                                                                           | 9C1          | 8.83                               | 9.30  | 20           |                 |     |                    | 7.4                               | 13.55                                 | $\geq 30$                   |

## Notes

(1) Pulse test:  $t_p = 40\text{ ms}$ (2) Pulse test:  $t_p = 8/20\text{ }\mu\text{s}$  acc. IEC 61000-4-5

(3) Contact and air discharge acc. IEC 61000-4-2

**ELECTRICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

| PART NUMBER | MARKING CODE | ZENER VOLTAGE RANGE <sup>(1)</sup> |       | TEST CURRENT | REVERSE CURRENT |     | DYNAMIC RESISTANCE | PEAK PULSE CURRENT <sup>(2)</sup> | REVERSE CLAMPING VOLTAGE AT $I_{PPM}$ | ESD IMMUNITY <sup>(3)</sup> |
|-------------|--------------|------------------------------------|-------|--------------|-----------------|-----|--------------------|-----------------------------------|---------------------------------------|-----------------------------|
|             |              | $V_Z$ at $I_{ZT}$                  |       | $I_{ZT1}$    | $I_R$ at $V_R$  |     | $Z_Z$ at $I_{ZT}$  | $I_{PPM}$                         | $V_C$                                 | $V_{ESD}$                   |
|             |              | V                                  |       | mA           | $\mu\text{A}$   | V   | $\Omega$           | A                                 | V                                     | kV                          |
|             |              | MIN.                               | MAX.  |              | MAX.            |     | MAX.               |                                   | MAX.                                  | MAX.                        |
| PLZ10A      | 10A          | 9.12                               | 9.59  | 20           | 0.2             | 7.0 | 8                  | 7.09                              | 14.1                                  | $\geq 30$                   |
| PLZ10B      | 10B          | 9.41                               | 9.90  | 20           |                 |     |                    | 6.90                              | 14.5                                  | $\geq 30$                   |
| PLZ10C      | 10C          | 9.70                               | 10.20 | 20           |                 |     |                    | 6.75                              | 14.8                                  | $\geq 30$                   |
| PLZ10D      | 10D          | 9.94                               | 10.44 | 20           |                 |     |                    | 6.58                              | 15.2                                  | $\geq 30$                   |
| PLZ11A      | 11A          | 10.18                              | 10.71 | 10           | 0.2             | 8.0 | 10                 | 6.47                              | 15.5                                  | $\geq 30$                   |
| PLZ11B      | 11B          | 10.50                              | 11.05 | 10           |                 |     |                    | 6.25                              | 16.0                                  | $\geq 30$                   |
| PLZ11C      | 11C          | 10.82                              | 11.38 | 10           |                 |     |                    | 6.10                              | 16.4                                  | $\geq 30$                   |
| PLZ12A      | 12A          | 11.13                              | 11.71 | 10           | 0.2             | 9.0 | 12                 | 5.95                              | 16.8                                  | $\geq 30$                   |
| PLZ12B      | 12B          | 11.44                              | 12.03 | 10           |                 |     |                    | 5.80                              | 17.2                                  | $\geq 30$                   |
| PLZ12C      | 12C          | 11.74                              | 12.35 | 10           |                 |     |                    | 5.43                              | 18.4                                  | $\geq 30$                   |
| PLZ13A      | 13A          | 12.11                              | 12.75 | 10           | 0.2             | 10  | 14                 | 5.29                              | 18.9                                  | $\geq 30$                   |
| PLZ13B      | 13B          | 12.55                              | 13.21 | 10           |                 |     |                    | 5.15                              | 19.4                                  | $\geq 30$                   |
| PLZ13C      | 13C          | 12.99                              | 13.66 | 10           |                 |     |                    | 5.05                              | 19.8                                  | $\geq 30$                   |
| PLZ15A      | 15A          | 13.44                              | 14.13 | 10           | 0.2             | 11  | 16                 | 4.93                              | 20.3                                  | $\geq 30$                   |
| PLZ15B      | 15B          | 13.89                              | 14.62 | 10           |                 |     |                    | 4.76                              | 21.0                                  | $\geq 30$                   |
| PLZ15C      | 15C          | 14.35                              | 15.09 | 10           |                 |     |                    | 4.50                              | 22.0                                  | $\geq 30$                   |
| PLZ16A      | 16A          | 14.80                              | 15.57 | 10           | 0.2             | 12  | 18                 | 4.25                              | 23.5                                  | $\geq 30$                   |
| PLZ16B      | 16B          | 15.25                              | 16.04 | 10           |                 |     |                    | 4.18                              | 23.9                                  | $\geq 30$                   |
| PLZ16C      | 16C          | 15.69                              | 16.51 | 10           |                 |     |                    | 3.96                              | 25.2                                  | $\geq 30$                   |
| PLZ18A      | 18A          | 16.22                              | 17.06 | 10           | 0.2             | 13  | 23                 | 3.95                              | 25.3                                  | $\geq 30$                   |
| PLZ18B      | 18B          | 16.82                              | 17.70 | 10           |                 |     |                    | 3.77                              | 26.5                                  | $\geq 30$                   |
| PLZ18C      | 18C          | 17.42                              | 18.33 | 10           |                 |     |                    | 3.69                              | 27.1                                  | $\geq 30$                   |
| PLZ20A      | 20A          | 18.02                              | 18.96 | 10           | 0.2             | 15  | 28                 | 3.43                              | 29.1                                  | $\geq 30$                   |
| PLZ20B      | 20B          | 18.63                              | 19.59 | 10           |                 |     |                    | 3.40                              | 29.4                                  | $\geq 30$                   |
| PLZ20C      | 20C          | 19.23                              | 20.22 | 10           |                 |     |                    | 3.33                              | 30.0                                  | $\geq 30$                   |
| PLZ20D      | 20D          | 19.72                              | 20.72 | 10           |                 |     |                    | 3.18                              | 31.4                                  | $\geq 30$                   |
| PLZ22A      | 22A          | 20.15                              | 21.20 | 5            | 0.2             | 17  | 30                 | 3.13                              | 31.9                                  | $\geq 30$                   |
| PLZ22B      | 22B          | 20.64                              | 21.71 | 5            |                 |     |                    | 3.07                              | 32.6                                  | $\geq 30$                   |
| PLZ22C      | 22C          | 21.08                              | 22.17 | 5            |                 |     |                    | 2.82                              | 35.4                                  | 25                          |
| PLZ22D      | 22D          | 21.52                              | 22.63 | 5            |                 |     |                    | 2.80                              | 35.6                                  | 25                          |
| PLZ24A      | 24A          | 22.05                              | 23.18 | 5            | 0.2             | 19  | 35                 | 2.77                              | 36.1                                  | 25                          |
| PLZ24B      | 24B          | 22.61                              | 23.77 | 5            |                 |     |                    | 2.70                              | 37.0                                  | 25                          |
| PLZ24C      | 24C          | 23.12                              | 24.31 | 5            |                 |     |                    | 2.64                              | 37.8                                  | 25                          |
| PLZ24D      | 24D          | 23.63                              | 24.85 | 5            |                 |     |                    | 2.61                              | 38.3                                  | 25                          |
| PLZ27A      | 27A          | 24.26                              | 25.52 | 5            | 0.2             | 21  | 45                 | 2.55                              | 39.2                                  | 25                          |
| PLZ27B      | 27B          | 24.97                              | 26.26 | 5            |                 |     |                    | 2.49                              | 40.1                                  | 25                          |
| PLZ27C      | 27C          | 25.63                              | 26.95 | 5            |                 |     |                    | 2.32                              | 43.0                                  | 20                          |
| PLZ27D      | 27D          | 26.29                              | 27.64 | 5            |                 |     |                    | 2.30                              | 43.5                                  | 20                          |

**Notes**(1) Pulse test:  $t_p = 40\text{ ms}$ (2) Pulse test:  $t_p = 8/20\text{ }\mu\text{s}$  acc. IEC 61000-4-5

(3) Contact and air discharge acc. IEC 61000-4-2

**ELECTRICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

| PART NUMBER | MARKING CODE | ZENER VOLTAGE RANGE <sup>(1)</sup> |       | TEST CURRENT | REVERSE CURRENT |    | DYNAMIC RESISTANCE | PEAK PULSE CURRENT <sup>(2)</sup> | REVERSE CLAMPING VOLTAGE AT $I_{PPM}$ | ESD IMMUNITY <sup>(3)</sup> |
|-------------|--------------|------------------------------------|-------|--------------|-----------------|----|--------------------|-----------------------------------|---------------------------------------|-----------------------------|
|             |              | $V_Z$ at $I_{ZT}$                  |       | $I_{ZT1}$    | $I_R$ at $V_R$  |    | $Z_Z$ at $I_{ZT}$  | $I_{PPM}$                         | $V_C$                                 | $V_{ESD}$                   |
|             |              | V                                  |       | mA           | $\mu\text{A}$   | V  | $\Omega$           | A                                 | V                                     | kV                          |
|             |              | MIN.                               | MAX.  |              | MAX.            |    | MAX.               |                                   | MAX.                                  | MAX.                        |
| PLZ30A      | 30A          | 26.99                              | 28.39 | 5            | 0.2             | 23 | 55                 | 2.28                              | 43.7                                  | 20                          |
| PLZ30B      | 30B          | 27.70                              | 29.13 | 5            |                 |    |                    | 2.21                              | 45.2                                  | 20                          |
| PLZ30C      | 30C          | 28.36                              | 29.82 | 5            |                 |    |                    | 2.21                              | 45.5                                  | 20                          |
| PLZ30D      | 30D          | 29.02                              | 30.51 | 5            |                 |    |                    | 2.20                              | 46.3                                  | 20                          |
| PLZ33A      | 33A          | 29.68                              | 31.22 | 5            | 0.2             | 25 | 65                 | 2.10                              | 47.6                                  | 20                          |
| PLZ33B      | 33B          | 30.32                              | 31.88 | 5            |                 |    |                    | 1.94                              | 51.6                                  | 15                          |
| PLZ33C      | 33C          | 30.90                              | 32.50 | 5            |                 |    |                    | 1.91                              | 52.2                                  | 15                          |
| PLZ33D      | 33D          | 31.49                              | 33.11 | 5            |                 |    |                    | 1.91                              | 52.2                                  | 15                          |
| PLZ36A      | 36A          | 32.14                              | 33.79 | 5            | 0.2             | 27 | 75                 | 1.88                              | 53.1                                  | 15                          |
| PLZ36B      | 36B          | 32.79                              | 34.49 | 5            |                 |    |                    | 1.78                              | 55.9                                  | 15                          |
| PLZ36C      | 36C          | 33.40                              | 35.13 | 5            |                 |    |                    | 1.76                              | 56.7                                  | 15                          |
| PLZ36D      | 36D          | 34.01                              | 35.77 | 5            |                 |    |                    | 1.75                              | 56.9                                  | 15                          |
| PLZ39A      | 39A          | 34.68                              | 36.47 | 5            | 0.2             | 30 | 85                 | 1.74                              | 57.2                                  | 15                          |
| PLZ39B      | 39B          | 35.36                              | 37.19 | 5            |                 |    |                    | 1.74                              | 57.4                                  | 15                          |
| PLZ39C      | 39C          | 36.00                              | 37.85 | 5            |                 |    |                    | 1.70                              | 58.7                                  | 15                          |
| PLZ39D      | 39D          | 36.63                              | 38.20 | 5            |                 |    |                    | 1.67                              | 59.9                                  | 15                          |

**Notes**

- (1) Pulse test:  $t_p = 40\text{ ms}$   
 (2) Pulse test:  $t_p = 8/20\text{ }\mu\text{s}$  acc. IEC 61000-4-5  
 (3) Contact and air discharge acc. IEC 61000-4-2

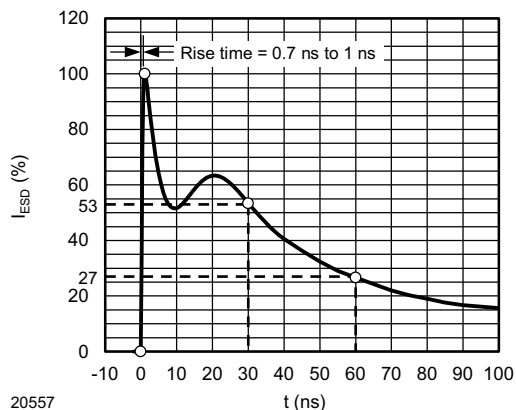
**TYPICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

Fig. 1 - ESD Discharge Current Wave Form  
acc. IEC 61000-4-2 (330  $\Omega$  / 150 pF)

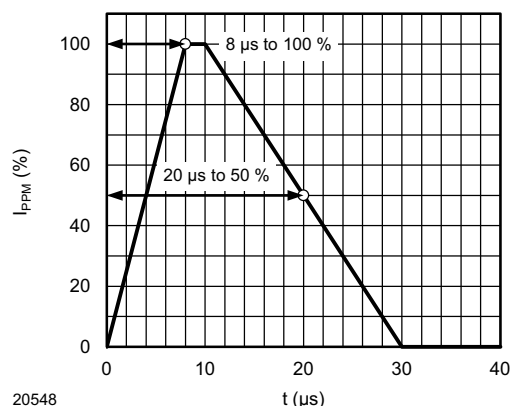


Fig. 2 - 8/20  $\mu\text{s}$  Peak Pulse Current Wave Form acc. IEC 61000-4-5

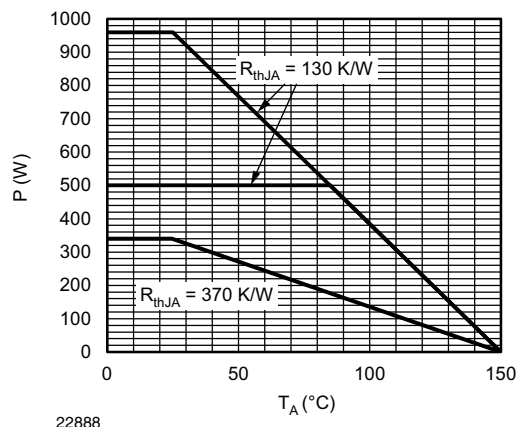


Fig. 3 - Maximum Power Dissipation vs. Ambient Temperature

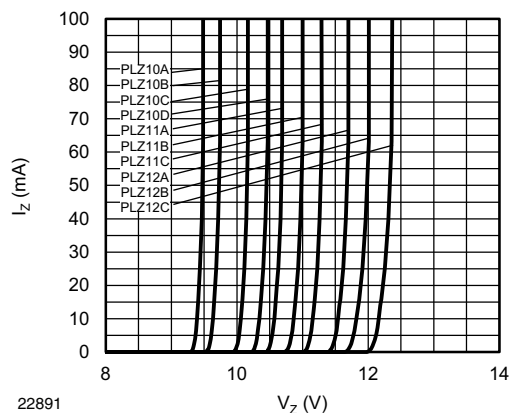


Fig. 6 - Breakdown Characteristics

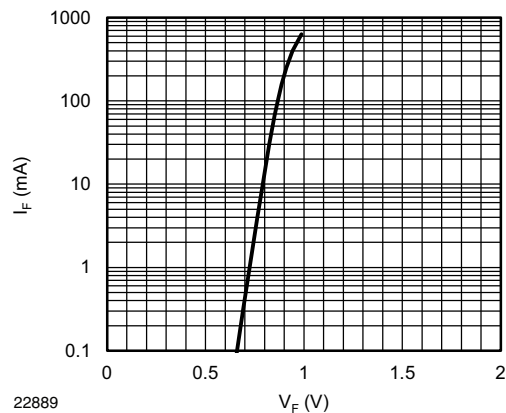


Fig. 4 - Typical Forward Current vs. Forward Voltage

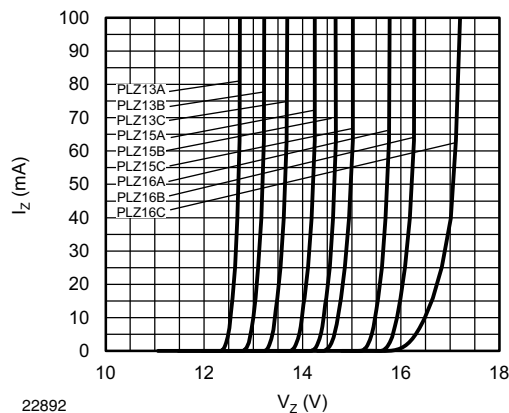


Fig. 7 - Breakdown Characteristics

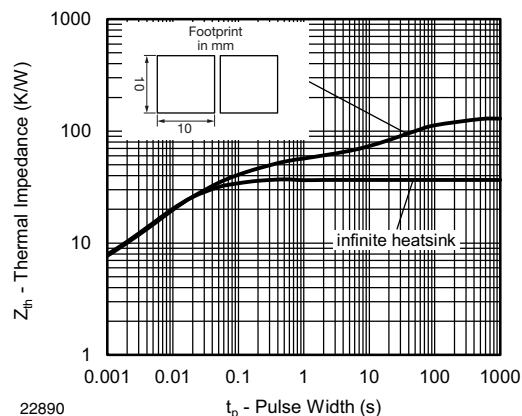


Fig. 5 - Thermal Impedance vs. Time

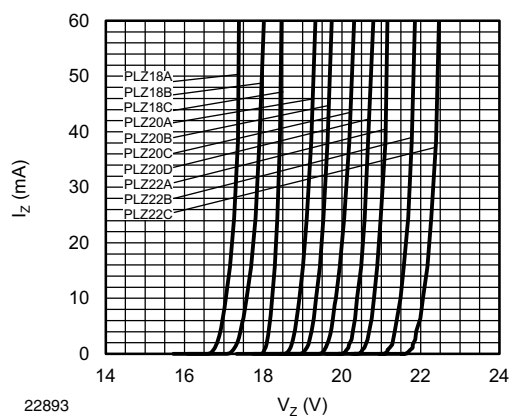


Fig. 8 - Breakdown Characteristics

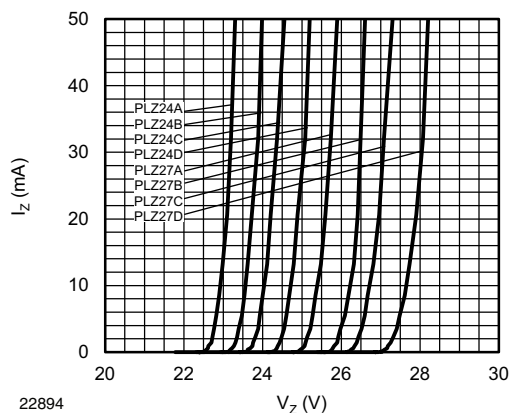


Fig. 9 - Breakdown Characteristics

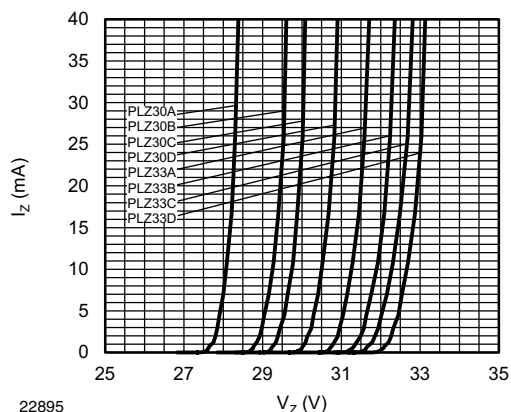


Fig. 10 - Breakdown Characteristics

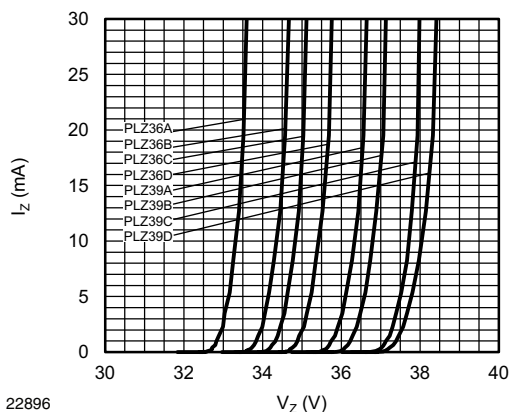
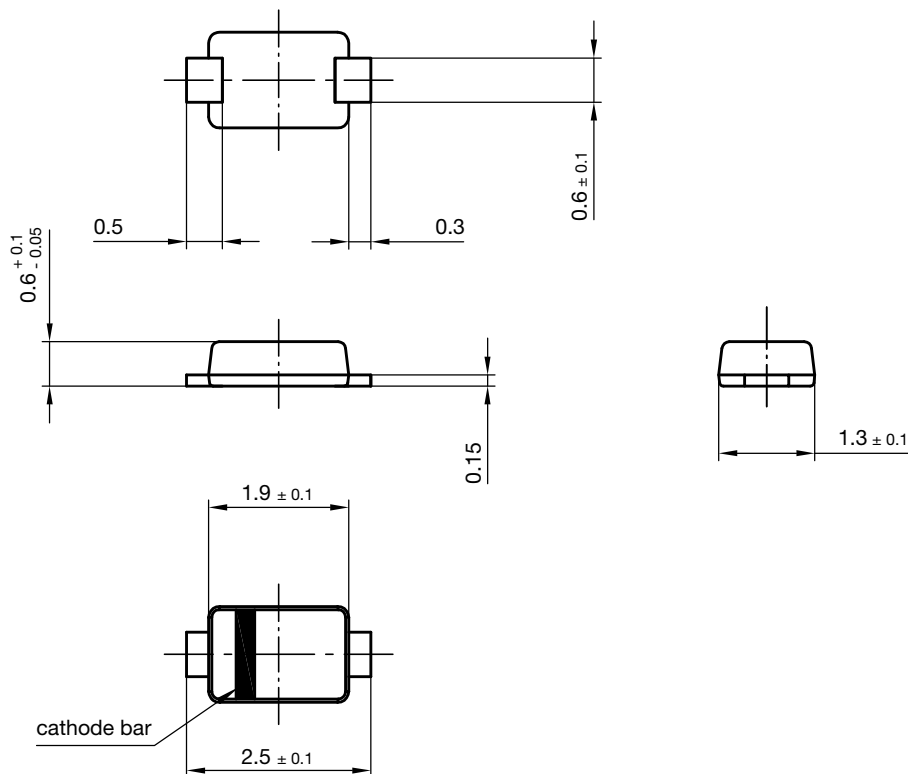
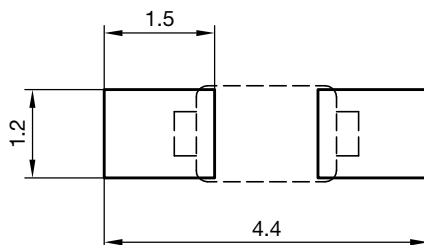


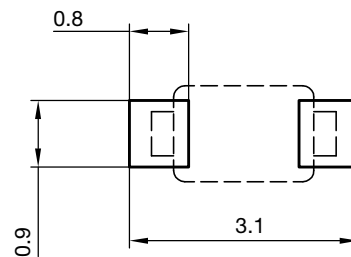
Fig. 11 - Breakdown Characteristics

**PACKAGE DIMENSIONS** in millimeters: DO-219AC (MicroSMF)


foot print recommendation  
for wave soldering:

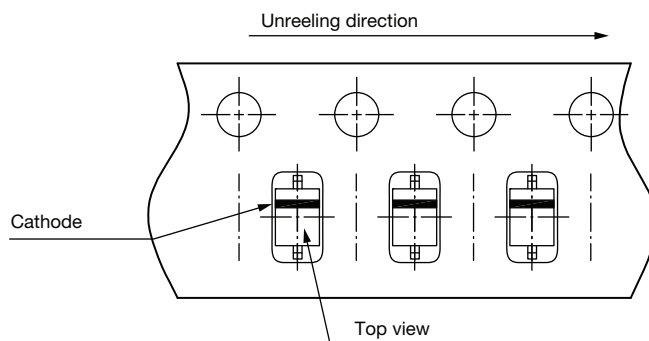
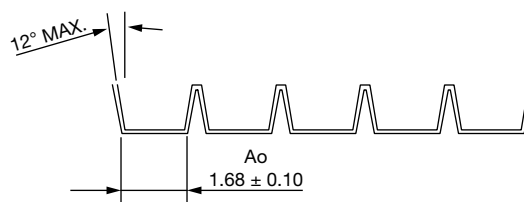
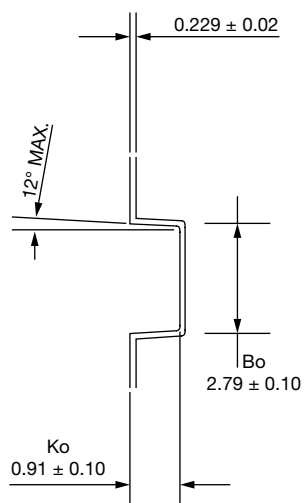
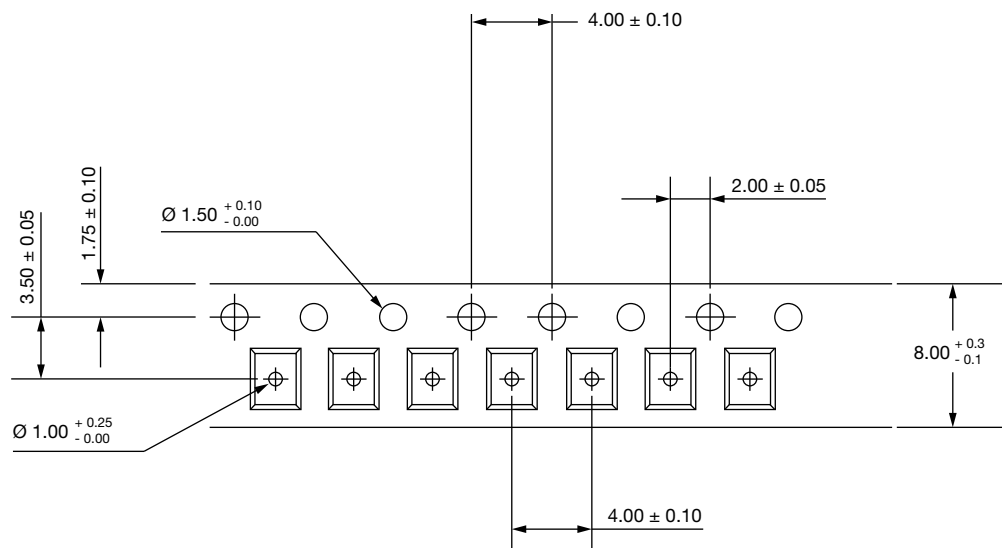


foot print recommendation  
for reflow soldering:



22741

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Created - Date: 02.Dec.2010  
Rev. 5 - Date: 06.May. 2014

**BLISTER TAPE DIMENSIONS** in millimeters: DO-219AC (MicroSMF)






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