

## Inductors, Military, MIL-PRF-15305 Qualified, Type LT, Molded, Shielded, Miniature, Axial Leaded



### FEATURES

- Flame retardant coating
- Electromagnetic shield
- Small package for a shielded inductor
- Epoxy molded construction provides superior moisture protection
- Precision performance, excellent reliability, sturdy construction

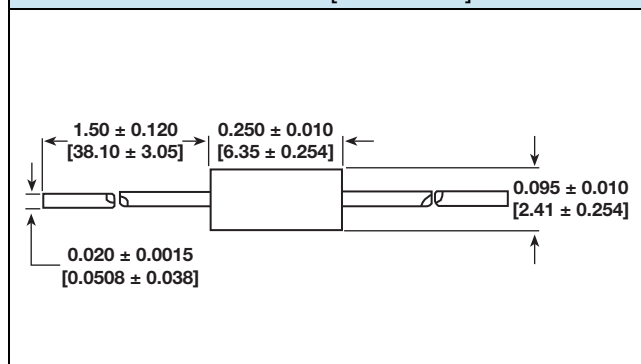
### INDUCTANCE RANGE AND MILITARY STANDARD

| MILITARY STANDARD | INDUCTANCE RANGE ( $\mu$ H) |     | CLASSIFICATION |       | MATERIAL     |              |
|-------------------|-----------------------------|-----|----------------|-------|--------------|--------------|
|                   | FROM                        | TO  | GRADE          | CLASS | CORE         | SHIELD       |
| MS21426           | 1.2                         | 100 | 1              | A     | Powered Iron | Powered Iron |

### ENVIRONMENTAL PERFORMANCE

| TEST                         | CONDITIONS | SPECIFICATIONS          |
|------------------------------|------------|-------------------------|
| Barometric Pressure          | C          | MIL-STD-202, method 105 |
| Thermal Shock                | A-1        | MIL-STD-202, method 107 |
| Flammability                 | -          | MIL-STD-202, method 111 |
| Overload                     | -          | MIL-PRF-15305           |
| Low Temperature Storage      | -          | MIL-PRF-15305           |
| Resistance to Soldering Heat | A          | MIL-STD-202, method 210 |
| Resistance to Solvents       | -          | MIL-STD-202, method 215 |

### DIMENSIONS in inches [millimeters]



### ELECTRICAL SPECIFICATIONS

**Inductance Tolerance:**  $\pm 10\%$  standard

**Insulation Resistance:** 1000 M $\Omega$  minimum per MIL-STD-202, method 302, test condition B

**Dielectric Withstanding Voltage:** 200 V<sub>AC</sub> per MIL-STD-202, method 301 (sea level)

**Percent Coupling:** 3 % maximum per MIL-PRF-15305

**Operating Temperature Range:** - 55 °C to + 105 °C

### MECHANICAL SPECIFICATIONS

**Terminal Strength:** 3 pounds pull per MIL-STD-202, method 211, test condition A except 180° rotation for a total of 540 °C

**Weight:** 0.30 g maximum

### MATERIAL SPECIFICATIONS

**Encapsulant:** Epoxy

**Standard Terminal:** #24 AWG tinned copper

### TEST EQUIPMENT <sup>(1)</sup>

- H/P 4342A Q-meter
- Measurements corporation megacycle meter, model 59
- Wheatstone bridge

#### Note

<sup>(1)</sup> Test procedures per MIL-PRF-15305

**STANDARD ELECTRICAL SPECIFICATIONS**

| MODEL   | IND.<br>( $\mu$ H) | TOL.<br>(%) | MILITARY<br>STANDARD | MILITARY<br>TYPE | Q<br>MIN. | TEST FREQ.<br>L AND Q<br>(MHz) | SRF MIN.<br>(MHz) <sup>(1)</sup> | DCR MAX.<br>( $\Omega$ ) | RATED DC CURRENT<br>(mA) <sup>(2)</sup> |           |
|---------|--------------------|-------------|----------------------|------------------|-----------|--------------------------------|----------------------------------|--------------------------|-----------------------------------------|-----------|
| MS21426 |                    |             |                      | LT10K            |           |                                |                                  |                          |                                         |           |
|         | 1.2                | $\pm 10$    | - 14                 | 531              | 40        | 7.9                            | 130                              | 0.73                     | 247                                     | IRON CORE |
|         | 1.5                | $\pm 10$    | - 15                 | 532              | 41        | 7.9                            | 115                              | 0.86                     | 228                                     |           |
|         | 1.8                | $\pm 10$    | - 16                 | 533              | 43        | 7.9                            | 105                              | 0.95                     | 217                                     |           |
|         | 2.2                | $\pm 10$    | - 17                 | 534              | 45        | 7.9                            | 95                               | 1.1                      | 202                                     |           |
|         | 2.7                | $\pm 10$    | - 18                 | 535              | 48        | 7.9                            | 90                               | 1.2                      | 193                                     |           |
|         | 3.3                | $\pm 10$    | - 19                 | 536              | 49        | 7.9                            | 80                               | 1.3                      | 185                                     |           |
|         | 3.9                | $\pm 10$    | - 20                 | 537              | 50        | 7.9                            | 75                               | 1.5                      | 173                                     |           |
|         | 4.7                | $\pm 10$    | - 21                 | 538              | 53        | 7.9                            | 70                               | 2.4                      | 136                                     |           |
|         | 5.6                | $\pm 10$    | - 22                 | 539              | 54        | 7.9                            | 60                               | 2.9                      | 124                                     |           |
|         | 6.8                | $\pm 10$    | - 23                 | 540              | 55        | 7.9                            | 55                               | 3.2                      | 118                                     |           |
|         | 8.2                | $\pm 10$    | - 24                 | 541              | 55        | 7.9                            | 53                               | 3.6                      | 111                                     |           |
|         | 10.0               | $\pm 10$    | - 25                 | 542              | 57        | 7.9                            | 50                               | 4.0                      | 106                                     |           |
|         | 12.0               | $\pm 10$    | - 26                 | 543              | 36        | 2.5                            | 35                               | 3.0                      | 122                                     |           |
|         | 15.0               | $\pm 10$    | - 27                 | 544              | 38        | 2.5                            | 30                               | 3.4                      | 115                                     |           |
|         | 18.0               | $\pm 10$    | - 28                 | 545              | 40        | 2.5                            | 26                               | 3.8                      | 108                                     |           |
|         | 22.0               | $\pm 10$    | - 29                 | 546              | 40        | 2.5                            | 24                               | 4.9                      | 96                                      |           |
|         | 27.0               | $\pm 10$    | - 30                 | 547              | 40        | 2.5                            | 21                               | 5.8                      | 88                                      |           |
|         | 33.0               | $\pm 10$    | - 31                 | 548              | 41        | 2.5                            | 20                               | 6.5                      | 83                                      |           |
|         | 39.0               | $\pm 10$    | - 32                 | 549              | 42        | 2.5                            | 19                               | 7.9                      | 75                                      |           |
|         | 47.0               | $\pm 10$    | - 33                 | 550              | 44        | 2.5                            | 16                               | 9.3                      | 69                                      |           |
|         | 56.0               | $\pm 10$    | - 34                 | 551              | 44        | 2.5                            | 15                               | 11                       | 64                                      |           |
|         | 68.0               | $\pm 10$    | - 35                 | 552              | 45        | 2.5                            | 13                               | 12                       | 61                                      |           |
|         | 82.0               | $\pm 10$    | - 36                 | 553              | 45        | 2.5                            | 11                               | 13                       | 59                                      |           |
|         | 100.0              | $\pm 10$    | - 37                 | 554              | 40        | 2.5                            | 10.5                             | 16.8                     | 51                                      |           |

**Notes**<sup>(1)</sup> Measured with full length lead<sup>(2)</sup> Rated DC current: Based on the maximum temperature rise not to exceed 15 °C at + 90 °C ambient**DESCRIPTION - MILITARY PART NUMBER**

|                      |                     |    |           |                 |          |            |
|----------------------|---------------------|----|-----------|-----------------|----------|------------|
| <b>MS21426</b>       | <b>-14</b>          |    | <b>LT</b> | <b>10</b>       | <b>K</b> | <b>531</b> |
| MILITARY<br>STANDARD | INDUCTANCE<br>VALUE | OR | TYPE      | GRADE AND CLASS | FAMILY   | ID NUMBER  |

**Note**

- Listing of military standard does not imply qualification. Contact factory for latest government QPL information

**GLOBAL PART NUMBER**

|                |          |          |          |          |          |                     |          |                 |          |          |          |
|----------------|----------|----------|----------|----------|----------|---------------------|----------|-----------------|----------|----------|----------|
| <b>M</b>       | <b>S</b> | <b>2</b> | <b>1</b> | <b>4</b> | <b>2</b> | <b>6</b>            | <b>-</b> | <b>1</b>        | <b>4</b> | <b>R</b> | <b>U</b> |
| PRODUCT FAMILY |          |          |          |          |          | INDUCTANCE<br>VALUE |          | PACKAGE<br>CODE |          |          |          |



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