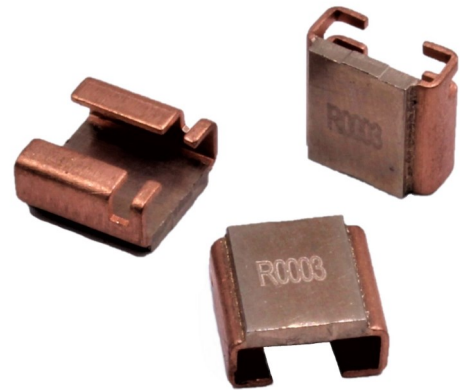


LRMAP2726

Features:

- 4-terminal Kelvin J-lead terminations
- Resistance range 0.2mΩ to 5mΩ
- 5W rating in compact footprint
- Robust welded construction
- Low inductance



All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Electrical Data

| | | LRMAP2726 | | | | | | | | | | |
|---------------------------------|--------|-------------|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|
| Resistance value | mΩ | 0.2 | 0.3 | 0.5 | 0.3 | 0.5 | 0.7 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 |
| Power rating, P _{r100} | W | 5 | | | | | | | 4 | 3 | 2 | 2 |
| Alloy | | E | | | F | B | | | C | | | |
| TCR (resistive alloy) | ppm/°C | ±10 | | | ±20 | | | | -35 to 0 | | | |
| TCR (resistor) | ppm/°C | ±50 | ±25 | | | ±50 | | | | | | |
| Resistance tolerance | % | ±1 | | | | | | | | | | |
| Inductance | nH | <3 | | | | | | | | | | |
| Ambient temperature range | °C | -55 to +170 | | | | | | | | | | |

Physical Data

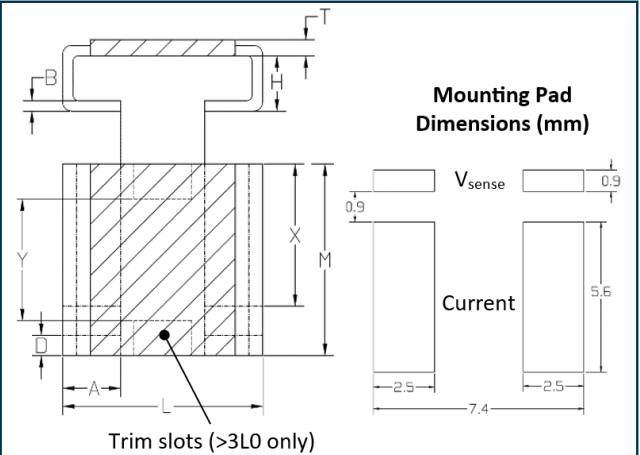
| Dimensions in mm and weight in g | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-------|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|--|--|--|--|--|--|--|------|------|
| Value | Alloy | M +0.35 -0.2 | L ±0.2 | H ±0.5 | X ±0.4 | D nom. | A ±0.2 | B ±0.2 | Y ±0.5 | T ±0.1 | Wt. nom. | | | | | | | | | |
| L20 | E | 6.6 | 6.9 | 2.4 | 4.9 | 0.7 | 1.9 | 0.4 | N/A | 1.42 | 0.58 | | | | | | | | | |
| L30 | | | | | | | | | | 0.80 | 0.41 | | | | | | | | | |
| L50 | | | | | | | | | | 0.45 | 0.31 | | | | | | | | | |
| L30 | F | | | | | | | | | 1.06 | 0.48 | | | | | | | | | |
| L50 | | | | | | | | | | B | | | | | | | | | 0.65 | 0.36 |
| L70 | | | | | | | | | | | | | | | | | | | 0.47 | 0.31 |
| 1L0 | 0.35 | | | | | | | | | | | | | | | | | | 0.28 | |
| 2L0 | C | | | | | | | | | C | | | | | | | | | 0.50 | 0.3 |
| 3L0 | | | | | | | | | | | | | | | | | | | 0.34 | 0.26 |
| 4L0 | | | | | | | | | | | | | | | | | | | 4.15 | 0.34 |
| 5L0 | | 3.15 | 0.34 | 0.26 | | | | | | | | | | | | | | | | |

Trim slots (>3L0 only)

Mounting Pad Dimensions (mm)

V_{sense} 0.9 0.9

Current 5.6 2.5 2.5 7.4



Marking

The component is laser marked with ohmic value using R to indicate decimal position in ohms.

Solvent Resistance

The component is resistant to all normal industrial cleaning solvents suitable for printed circuits.

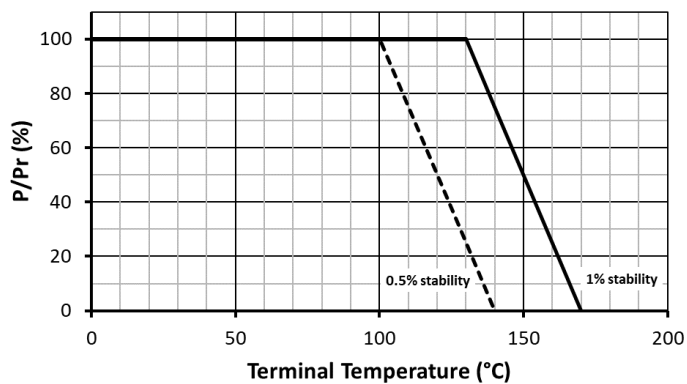
Construction

The component is formed from a continuous band of E-beam welded precision resistive strip. Different resistance alloys are used based on the resistance value. The component is supplied without plating.

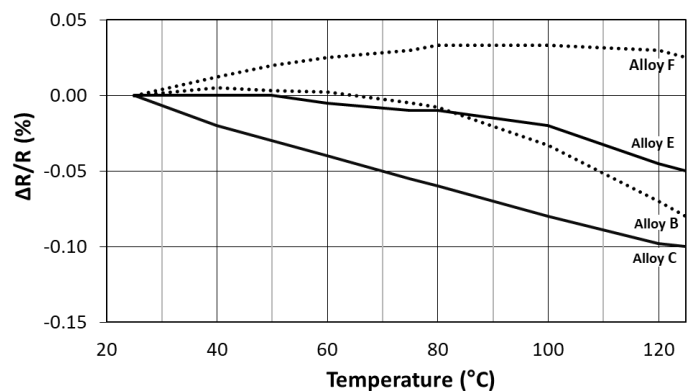
Performance Data

| Test | Methods | Reference | ΔR |
|---------------------------|---|------------------------|---------------|
| Load life | 1000 hours, cyclic load at $T_A = 125^\circ\text{C}$, rated power per Temperature Derating graph below | MIL-STD-202 Method 108 | $\pm 1\%$ |
| Short Term Overload | $5 \times P_{r100}$ for 5 s | -- | $\pm 1\%$ |
| High Temperature Exposure | 1000 hours, $T_A = 170^\circ\text{C}$, unpowered | MIL-STD-202 Method 108 | $\pm 1\%$ |
| Low Temperature Storage | -65°C for 24hrs | -- | $\pm 0.2\%$ |
| Temperature Cycle | 1000 cycles, -55°C to 150°C , 30 minutes dwell | JESD22 Method JA-104 | $\pm 0.5\%$ |
| Biased Humidity | 1000 hours, $85^\circ\text{C}/85\%\text{RH}$, 10% of P_{r100} | MIL-STD-202 Method 103 | $\pm 0.5\%$ |
| Vibration | 10 - 2000Hz, 5g, 20min, 12 cycles/axis x 3 axes | MIL-STD-202 Method 204 | $\pm 0.2\%$ |
| Mechanical Shock | 100g, 6ms, half-sine | MIL-STD-202 Method 213 | $\pm 0.2\%$ |
| Resistance to Solder Heat | $260 \pm 5^\circ\text{C}$, $10 \pm 1\text{s}$ | MIL-STD-202 Method 210 | $\pm 0.5\%$ |
| Solderability | $245 \pm 5^\circ\text{C}$, $5 \pm 0.5\text{s}$ | J-STD-002 | >95% coverage |
| Resistance to Solvents | Clean with aqueous chemical | MIL-STD-202 Method 215 | No damage |

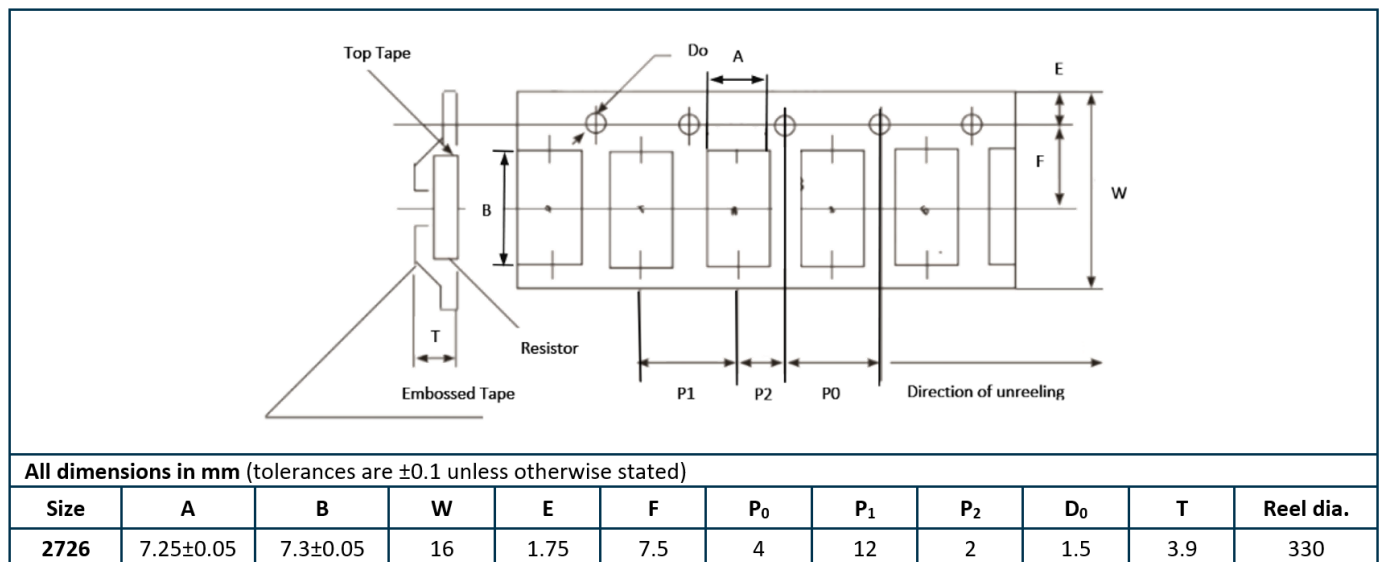
Temperature Derating



Typical Temperature Characteristic



Packaging



Ordering Procedure

Example: LRMAP2726B-1L0FT15 (1 milliohm $\pm 1\%$, Pb-free)

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L | R | M | A | P | 2 | 7 | 2 | 6 | B | - | 1 | L | 0 | F | T | 1 | 5 |
| 1 | | | | | | | | | 2 | 3 | | | 4 | 5 | | | |

| 1 Type | 2 Alloy | 3 Value | 4 Tolerance | 5 Packing |
|-----------|------------|---------------|----------------|-------------------------------|
| LRMAP2726 | B | 3 characters | F = $\pm 1\%$ | T15 = plastic tape, 1500/reel |
| | C | L = milliohms | | |
| | E | | | |
| | F | | | |