# Low Resistance Metal Alloy Power Resistors

## **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 <sub>r100</sub>	W				5				4	3	2	2
Alloy		E			F	В			С			
TCR (resistive alloy)	ppm/°C	±10			±20				-35 to 0			
TCR (resistor)	ppm/°C	±50	±ź	25	±50							
Resistance tolerance	%				±1							
Inductance	nH		<3									
Ambient temperature range	°C		-55 to +170									

## **Physical Data**

Dimen	Dimensions in mm and weight in g									Γ <sup>T</sup>		
Value	Alloy	<b>M</b> +0.35 -0.2	<b>L</b> ±0.2	<b>Н</b> ±0.5	<b>X</b> ±0.4	D nom.	<b>A</b> ±0.2	<b>В</b> ±0.2	<b>Υ</b> ±0.5	<b>T</b> ±0.1	<b>Wt.</b> nom.	Mounting Pad
L20										1.42	0.58	Dimensions (mm)
L30	Е									0.80	0.41	
L50										0.45	0.31	Vsense 0.9
L30	F									1.06	0.48	
L50									N/A	0.65	0.36	
L70	В	6.6	6.9	2.4	4.9	0.7	1.9	0.4		0.47	0.31	Current 5.6
1L0										0.35	0.28	
2L0										0.50	0.3	
3L0	с									0.34	0.26	
4L0	C								4.15	0.34	0.26	
5L0									3.15	0.34	0.26	Trim slots (>3L0 only)

### Marking

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

#### **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.

General Note

T Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

## LRMAP2726

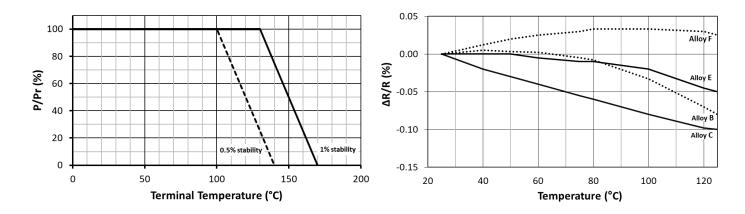


## **Performance Data**

Test	Methods	Reference	ΔR
Load life	1000 hours, cyclic load at T <sub>A</sub> =125°C, rated power per Temperature Derating graph below	MIL-STD-202 Method 108	±1%
Short Term Overload	5 × P <sub>r100</sub> for 5 s		±1%
High Temperature Exposure	1000 hours, T <sub>A</sub> =170°C, unpowered	MIL-STD-202 Method 108	±1%
Low Temperature Storage	-65°C for 24hrs		±0.2%
Temperature Cycle	1000 cycles, -55°C to 150°C, 30 minutes dwell	JESD22 Method JA-104	±0.5%
Biased Humidity	1000 hours, 85°C/85%RH, 10% of P <sub>r100</sub>	MIL-STD-202 Method 103	±0.5%
Vibration	10 - 2000Hz, 5g, 20min, 12 cycles/axis x 3 axes	MIL-STD-202 Method 204	±0.2%
Mechanical Shock	100g, 6ms, half-sine	MIL-STD-202 Method 213	±0.2%
Resistance to Solder Heat	260 ± 5°C, 10 ± 1s	MIL-STD-202 Method 210	±0.5%
Solderability	245 ± 5°C, 5 ± 0.5s	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

		Top Ta	Embossed Ta	Resistor			P0	Direction of unr	E F w eeling		
All dimen	sions in mm (†	tolerances are	e ±0.1 unles	ss otherwis	e stated)						
Size	Α	В	w	E	F	Po	P <sub>1</sub>	P <sub>2</sub>	Do	т	Reel dia.
2726	7.25±0.05	7.3±0.05	16	1.75	7.5	4	12	2	1.5	3.9	330

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## **Ordering Procedure**

Example: LRMAP2726B-1L0FT15 (1 milliohm ±1%, Pb-free)

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

1	2	3	4	5
Туре	Alloy	Value	Tolerance	Packing
LRMAP2726	В	3 characters	F = ±1%	T15 = plastic tape, 1500/reel
	С	L = milliohms		_
	E			
	F			

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<u>LRMAP2726E-L20FT14</u> <u>LRMAP2726E-L20FT15</u> <u>LRMAP2726B-1L0FT15</u> <u>LRMAP2726B-L50FT15</u> <u>LRMAP2726C-</u> 2L0FT15