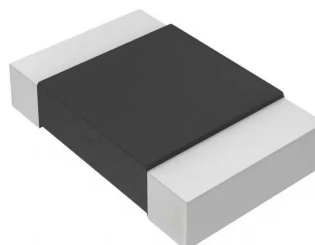
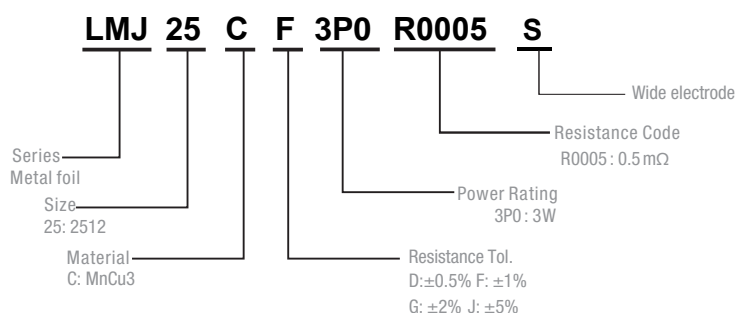


## Description

- Proprietary processing technique produces extremely low resistance values
- Very low inductance
- Low thermal EMF
- Metallic Material



## Part Numbering System

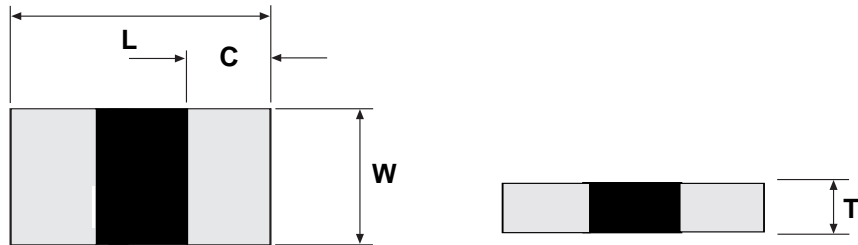


Parameter	Standard
Power Rating	3W
Resistance Value	0.5mΩ
Operating Temperature Range	-55 to +170°C
Component Temperature Coefficient (TCR)	±350 ppm/°C
Maximum Working Voltage (V)	$(P \times R)^{1/2}$

## Standard Electrical Specifications

Type	Rating Power at 70°C	T.C.R. (ppm/°C)	Resistance Range(mΩ) ±0.5% (D) ±1.0% (F) ±2.0% (G) ±5.0% (J)	Material	Electrode	Operating Temperature(°C)
LMJ25	3W	±350	0.5	MnCu3	Wide	-55~+170°C

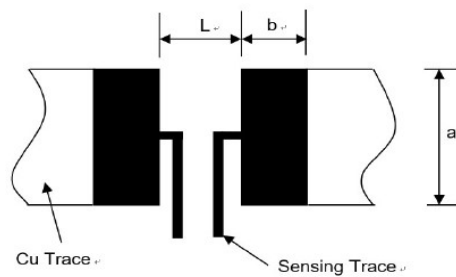
## Construction



Unit: Millimeters

Style	Resistance (mΩ)	L	W	C	T	Material
LMJ25	0.5	6.4±0.2	3.2±0.2	2.1±0.25	0.9 ±0.20	MnCu3

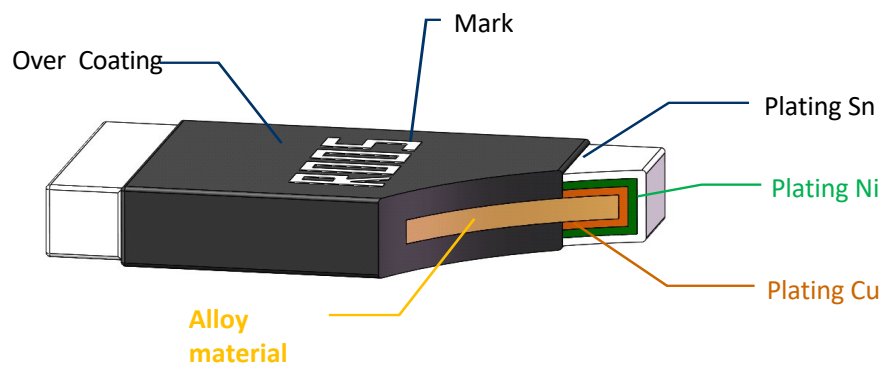
## Recommended land pattern



Unit: Millimeters

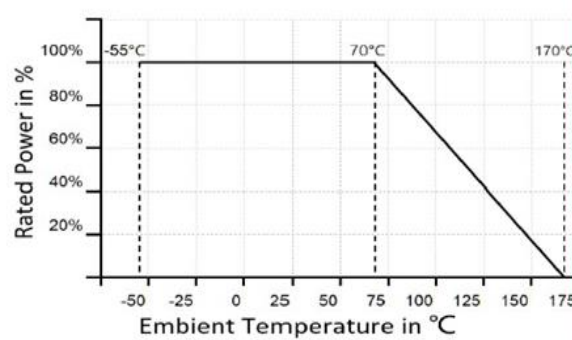
Resistance Range (mΩ)	a	b	L
0.5	4.0±0.1	3.1±0.1	1.3±0.1

## Product structure diagram

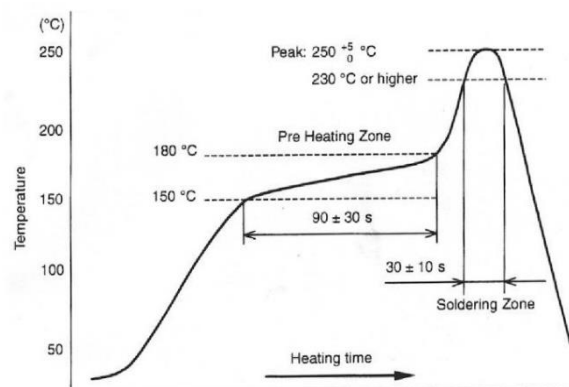


## Power Derating Curve

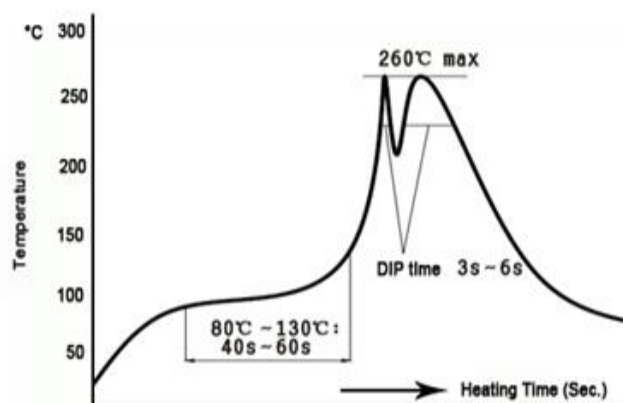
For resistors operated in ambient temperatures 70°C, power rating shall be derated in accordance with the curve below:



## IR Reflow-Soldering Profile



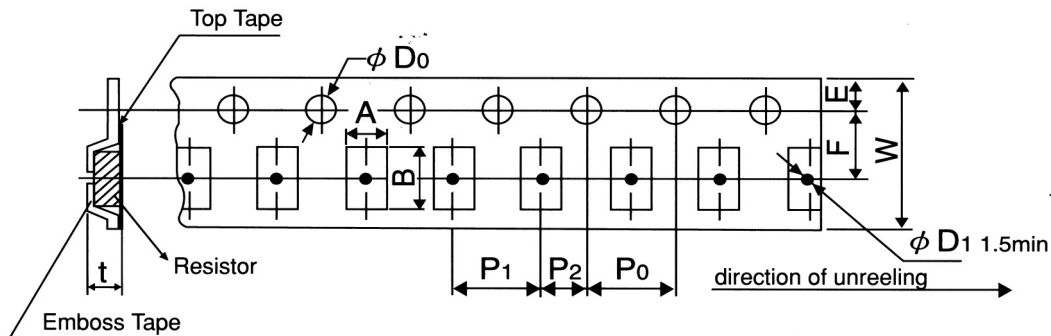
## Wave- Soldering Profile



## Product Characteristics

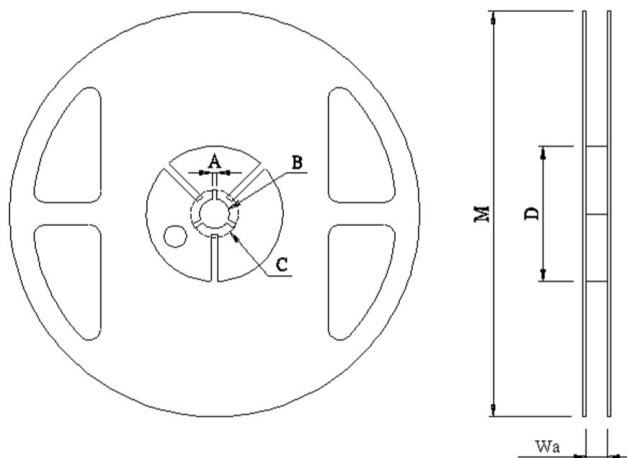
Item	Test condition/ Methods	Limited	Standard						
Temperature coefficient of resistance	TCR =(R-R <sub>0</sub> )/R <sub>0</sub> (T2-T1)X 10 <sup>6</sup> R <sub>0</sub> : resistance of room temperature R: resistance of 125℃ T1: Room temperature T2: Temperature at 125℃	Refer to Spec	MIL-STD-202 Method 304						
Short time Overload	Apply an overload for 5 seconds, then measure the resistance change rate after a 24 hour rest. (The overload conditions are as shown in the table below.) <table><tr><td>Type</td><td>Power(W)</td><td># of rated power</td></tr><tr><td>2512</td><td>3</td><td>5 times</td></tr></table>	Type	Power(W)	# of rated power	2512	3	5 times	≤±0.5%	JIS-C5201-1 4.13
Type	Power(W)	# of rated power							
2512	3	5 times							
Resistance to Soldering Heat	260℃± 5℃ time: 10sec± 1sec	≤±0.5%	MIL-STD-202 Method 210						
Temperature Cycling	-55℃ (15min)/+150℃(15min), 1000 cycles	≤±0.5%	MIL-STD-202 Method107G						
Low temperature Storage	-55±2℃ for 96 hours, No power	≤±0.5%	MIL-STD-26E						
High Temperature Storage	170℃for 1000hours, No power	≤±1%	IEC6011501-4.25						
Bias Humidity	+85℃ , 85% RH, 10%bias, 1000hours	≤±0.5%	MIL-STD-202 Method103						
Solderability	245±5℃ , 3±1sec	At least 95% of surface area of electrode shall be covered with new solder	IEC60115-1-4.17 JIS-C5201-4.17						
Load life	70℃± 2℃ , 1000 hours, at rated power 1.5 hours “ON”, 0.5 hours “OFF”	≤±1%	MIL-STD-202 Method 108						
Terminal Strength	Bendability test Welded onto the bendability test board and placed on the bending test machine, apply a force of 2.5 kg at the center of the test board and press down 2 mm. Under the load for 60 seconds, measure the rate of change in resistance.	≤±0.5%	JIS-C5201-1 4.33						

## Tapping & Package



Type	Pack	A $\pm 0.2$	B $\pm 0.2$	D0 $+0.05-0$	E $\pm 0.1$	F $\pm 0.05$	P0 $\pm 0.1$	P1 $\pm 0.1$	P2 $\pm 0.1$	W $\pm 0.2$	D1 $\pm 0.05$	T $\pm 0.15$
2512	Emboss	3.60	6.90	1.50	1.75	5.50	4.00	4.00	2.00	12.00	1.50	1.20

## Reel Specification



Unit: Millimeters

Type	A	B	C	D	M	W
2512	$2.00 \pm 0.5$	$13.50 \pm 0.5$	$21.00 \pm 0.5$	$60.00 \pm 1.0$	$178.00 \pm 2.0$	$13.80 \pm 0.5$

## Packaging

Quantity: 4, 000pcs

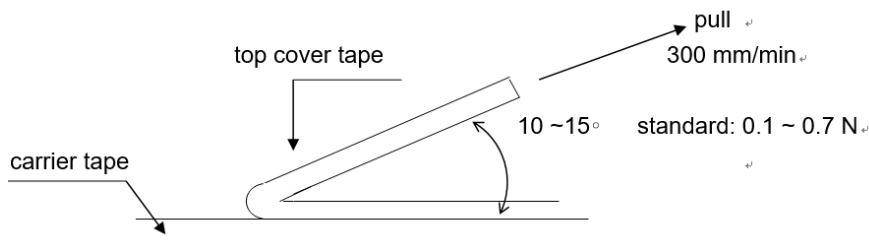
8mm wide tape on 178mm(7 inch)

diameter reel -specification EIA

Standard 481.

## Peel strength of upper belt

Stripping speed: 300 mm / min; The peel force is between 0.1N and 0.7n.



## Storage conditions & shelf life

It can be stored for 2 years under closed conditions with temperature of 5 ° C ~ 35 ° C and relative humidity of 40 ~ 75

Please avoid the following harsh environment during storage to avoid affecting the product performance and solder connectivity: the places with corrosive gases such as sea breeze, Cl<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, SO<sub>2</sub> and NO<sub>2</sub> shall be stored without direct sunlight.

## Precautions for product use

When measuring the resistance value before welding, a special resistance meter with high precision shall be used. When measuring, a 4-wire probe or fixture must be used. 4. When measuring parts with a wire measuring needle, the 4 measuring needles must indeed contact the parts.

Avoid damaging the protective layer during manual welding or clamping with tweezers.

When the PCB is divided or fixed on the support, be careful to avoid excessive bending causing mechanical stress to the resistor.

It shall be used within the rated power range within the specification, especially when the power exceeds the rated value, which may affect the reliability of the product