

Product Acknowledgement Letter

Customer Name: _____

Product Name: Encapsulated Alloy Resistor

Product Specification: HoLR2725D-4W-1mR-1%

Product Code: _____

Date of document: 2026-07-14

Approved Company Signature			
Edited by	Reviewed by	Approved by	
ZhenhuanLiao	YongkangHuang	WenyiLeng	

Customer confirmation seal			
Acknowledged by	Reviewed by	Approved by	Company Seal

■ Purpose

Through the description of sample characteristics and inspection standards in this acknowledgment, we can better communicate with customers, reach an agreement, and avoid product quality disputes caused by insufficient communication.

■ Scope of application

This Certificate of Acceptance applies to the samples provided by Shenzhen Milliohm Electronic Ltd. and covers product characteristics and product inspection standards.

■ Order association

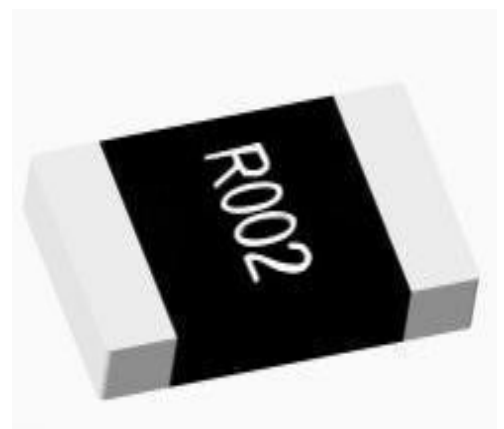
The Customer hereby acknowledges that the specifications and models of materials under all contractual orders with Shenzhen Milliohm Electronic Ltd. are consistent with the delivered products. If no objection or confirmation is received, this acknowledgment shall be deemed effective two weeks after the date of receipt by the Customer.

■ Product Features

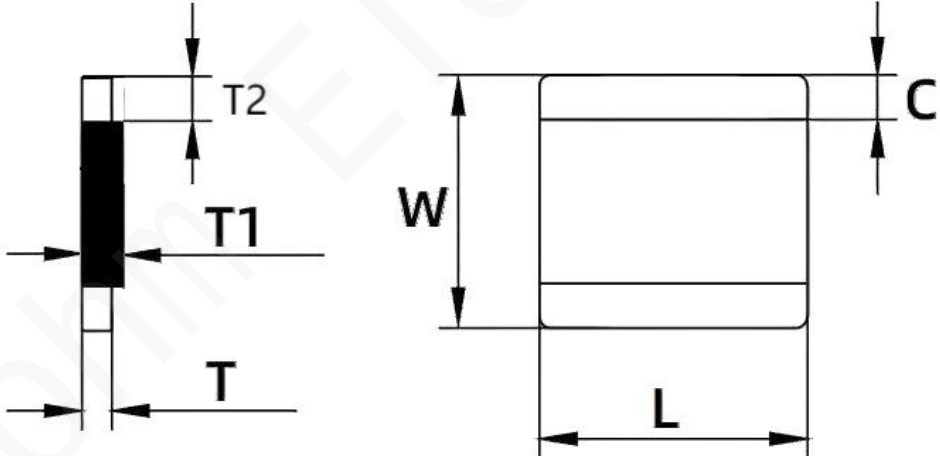
1. We are the first domestic manufacturer adopting high thermal conductivity epoxy resin for alloy resistor production.
2. Adopts alloy chip and encapsulation technology, featuring excellent solderability, high reliability and strong overload resistance.
3. Excellent product consistency, high precision, superior reliability and stability.
4. Low temperature coefficient of resistance (TCR), ultra-low parasitic inductance, suitable for high-frequency AC current sensing applications.
5. Compliant with RoHS and halogen-free requirements.

■ Product Application Scope

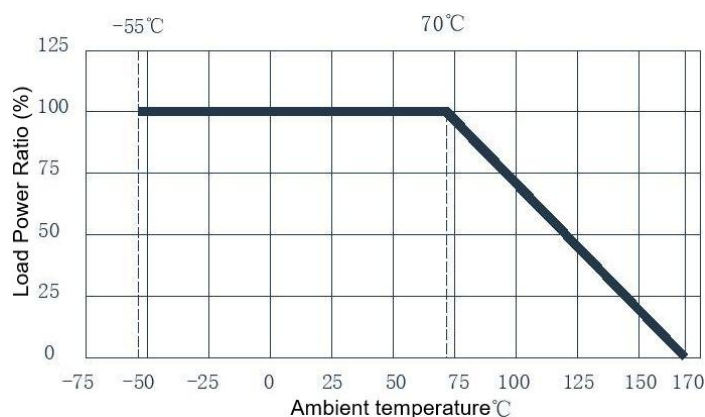
1. Power Modules
2. Industrial Instrument & Equipment
3. Automation Control Systems
4. Frequency Conversion Drives
5. Servo Drive Systems



Selection Example:HoLR2725D-4W-1mR-1%				Encapsulated Alloy Resistor	
<u>Ho</u>	<u>LR</u>	<u>2725D</u>	<u>4W</u>	<u>1mR</u>	<u>1%</u>
↓	↓	↓	↓	↓	↓
Manufacturer	Product Type	Dimensions	Power Rating	Resistance value	Resistance Tolerance
Ho	LR	2725D	4W	1mR	±1%

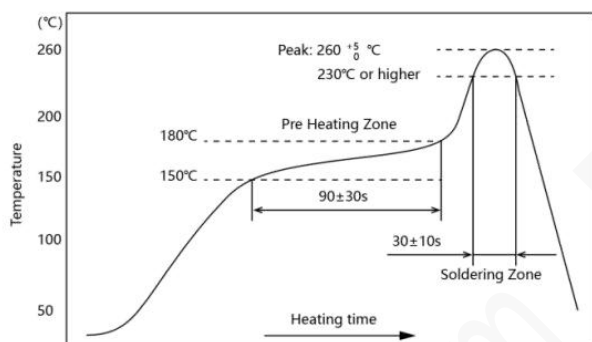
Product dimensions				
Project	Parameter			
Dimensions (mm)	W (6.8±0.35)	L (6.5±0.35)	C (1.1±0.25)	T (0.8±0.25)
	T1 (1.1±0.25)	T2 (1.1±0.25)		
ProductCode: Shenzhen Milliohm Electronic Ltd Controlled documents				
Rated Power	4W			
Resistance value	1mR			
Rated Current	63.24A			
Accuracy Range	±1%			
TCR	±50ppm/°C			
Material	Manganin			
Operating temperature	-55°C~+170°C			
Customer confirmation	Customer Signature:		Signature date:	
Remarks				

Power Derating Curve

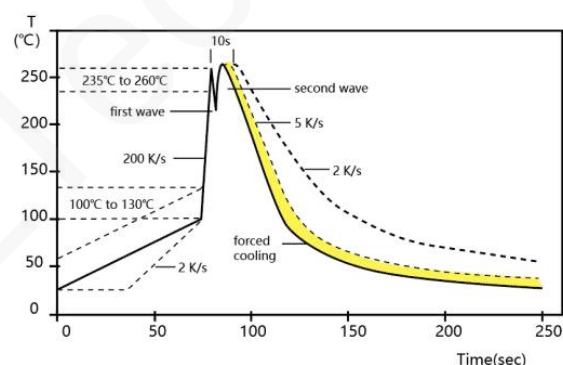


Operating temperature range: -55°C to +170°C power dissipation curve when resistor temperature reaches 70°C

Recommended Welding Parameters

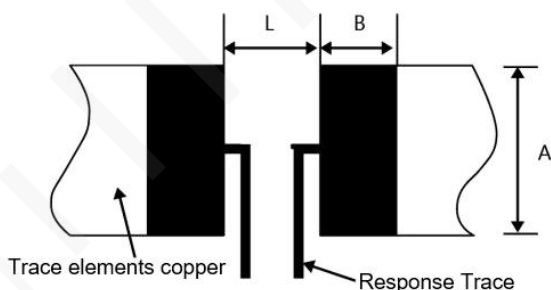


Reflow Soldering Profile



Wave Soldering Profile

Recommended Pad Dimensions (mm)



A	L	B
6.9	2.2	2.3

Rated current calculation formula

$$I = \sqrt{P/R}$$

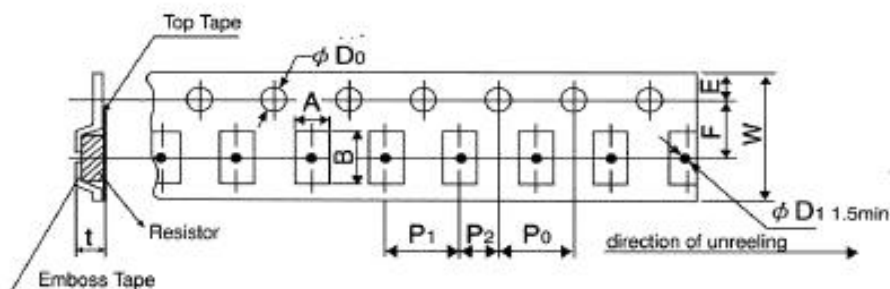
I
Rated Current
(A)

P
Rated Power
(W)

W
Resistance
(Ω)

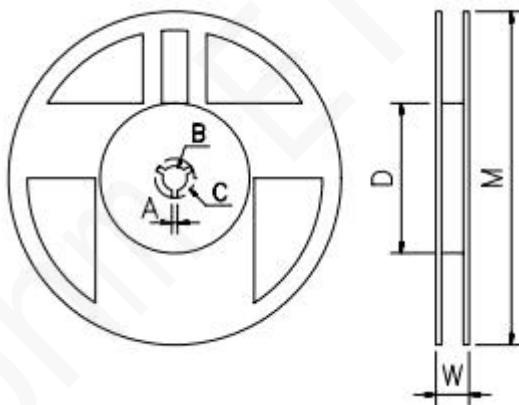
Performance Test			
Test Item	Standard	Test Condition	Test Limit Value
Temperature Coefficient of Resistance (TCR)	IEC60115-1-4.8 JIS-C5201-4.8	Test points: +25°C ~ +125°C, reference point: +25°C	As per specification
Load Life	IEC60115-1-4.25.1 JIS-C5201-4.25.1	1000 hours at rated power, 70°C, 1.5 hours "ON" / 0.5 hours "OFF"	No visible damage, $\Delta R \pm 1\%$
Short Time Overload	IEC60115-1-4.13 JIS-C5201-4.13	5 times rated power, 5 seconds	No visible damage, $\Delta R \pm 1\%$
High Temperature High Humidity	IEC60115-1-4.24.2.1a) JIS-C5201-4.24.2.1a)	85°C, 85% relative humidity, 1000 hours, 10% rated power applied	No visible damage, $\Delta R \pm 1\%$
Temperature Cycling	IEC60115-1-4.19 JIS-C5201-4.19	-55°C@30 minutes ~ +155°C@30 minutes, 1000 cycles	No visible damage, $\Delta R \pm 0.5\%$
Resistance to Soldering Heat	IEC60115-1-4.18 JIS-C5201-4.18	260±5°C, 10±1 seconds	No visible damage, $\Delta R \pm 0.5\%$
Solderability	IEC60115-1-4.17 JIS-C5201-4.17	245±5°C, 3±0.5 seconds	At least 95% of the electrode surface area shall be covered with new solder
High Temperature Storage	IEC60115-1-4.23.2 JIS-C5201-4.23.2	1000 hours at 170°C, no load	No visible damage, $\Delta R \pm 1\%$
Low Temperature Storage	IEC60115-1-4.23.4 JIS-C5201-4.23.4	1000 hours at -55°C, no load	No visible damage, $\Delta R \pm 1\%$
Substrate Bending	IEC60115-1-4.33 JIS-C5201-4.33	2mm, holding time 60±5 seconds	Within specified value
Voltage Proof	IEC60115-14.7 JIS-C5201-14.7	Apply AC voltage with effective value of maximum load voltage between electrode and substrate at a rate of approx. 100V/S, hold for 60±5 seconds	No breakdown or flashover
Solvent Resistance	IEC60115-14.29 JIS-C5201-14.29	Isopropyl alcohol (IPA), solvent temperature: 23±5°C, duration: 5±0.5 minutes	Marking is clear, no visible damage

Tape Specifications (mm)



A	B	W	F	E	P1	P2	P0	D0	T
6.8±0.2	7.2±0.2	12±0.2	5.5±0.05	1.75±0.1	8±0.1	2±0.05	4±0.05	Φ1.5+0.1	1.45±0.15

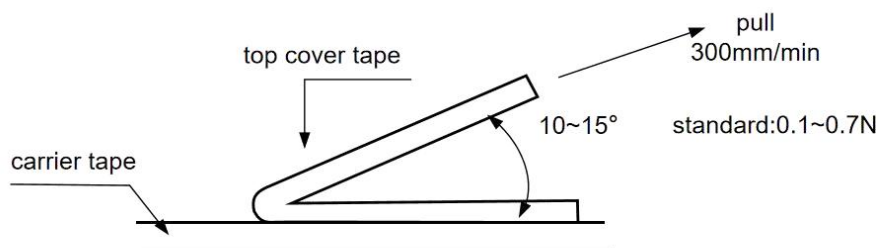
Reel Specifications (mm)



W	M	A	B	C	D	Quantity
16.2±0.5	178±1	2.5±1	13.5±1	17.7±1	60±2	1000pcs

Peeling Strength of Top Cover Tape

Peeltest: peelspeed 300mm/min; peel force 0.1N-0.7N



■ Instructions for Use:

1、Product User Manual

- ① During product use, ensure surface protection to prevent defects such as dents or scratches on the product surface.
- ② During installation and use, avoid subjecting the product to mechanical stress.
- ③ Long-term operating power must not exceed the rated power to prevent resistance drift caused by sustained overloading.
- ④ When operating under high temperatures or poor heat dissipation conditions, refer to the derating curve for power reduction applications.

2、Product Storage Instructions

- ① Store the product at ambient temperatures between 5°C and 35°C, with relative humidity below 65%. Maintain humidity at the lowest possible level.
- ② Keep the product in a clean, dry environment free from harmful gases.
- ③ Avoid removing the product from its packaging until ready for use.
- ④ Under the specified storage conditions, the product remains viable for one year.
- ⑤ For products stored longer than one year, inspect the surface for oxidation and conduct solderability testing.