

HoJLR1206 Series Encapsulated Alloy Resistors Datasheet

■ Features

- ① Alloy Chip ② Encapsulation Process
- ③ Excellent Solderability ④ High Reliability
- ⑤ High load Capability ⑥ High Product Accuracy
- ⑦ Wide Operating Temperature Range, Non Inductive Design
- ⑧ RoHS Compliant and Halogen-Free
- ⑨ $TCR \times 10^{-6}/^{\circ}C \pm 50ppm$



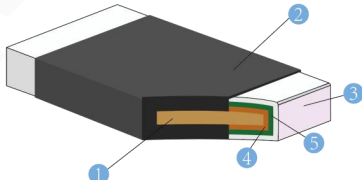
■ Scope of Application

- ① power module ② variable frequency drive
- ③ Industrial Instrumentation ④ Servo Drive Systems
- ⑤ Automated control systems

■ Electrical parameters

Size	Rated Power	Resistance Value	T.C.R.	Operating Temp. Range	Resistance Tolerance	Maximum Rated Current
JLR1206	0.75W、1W	0R	/	-55℃~+170℃	±0.5%	70A
		1mΩ < R≤100mΩ	±50 ppm/℃		±1%	31.62A
	1/2W	101mΩ < R≤200mΩ			±5%	2.22A

■ Product Construction

	serial number	Part Name
	1	Alloy Resistive
	2	Encapsulated Layer
	3	Sn Layer
	4	Cu Layer
	5	Ni Layer



■ Part Number Selection

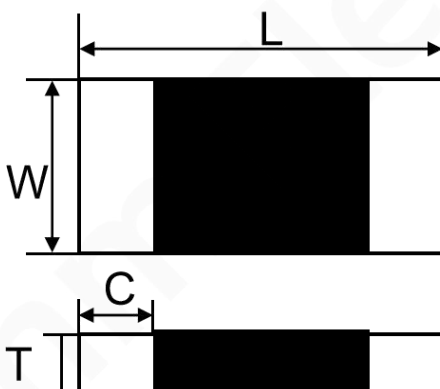
Example: HoJLR1206-1W-10mR-1%

Encapsulated alloy resistor1206 1W 10mΩ 1% small electrode

H	o	J	L	R	1	2	0	6	1	W	1	0	m	R	1	%
↓		↓			↓				↓		↓			↓		
Manufacture	Series	Encapsulated alloy	Rated Power	Resistance Value	Tolerance											
Milliohm	Encapsulated alloy	1206	0.75W 1W	0R-100mR	±0.5% ±1% ±5%											
			1/2W	101mR-200mR												

For specific parameters, please check the details on the following page

■ Product Dimensions (mm)



Size	Resistance	L	W	C	T
1206	0R~200mR	3.2±0.2	1.6±0.2	0.5±0.2	0.7±0.2

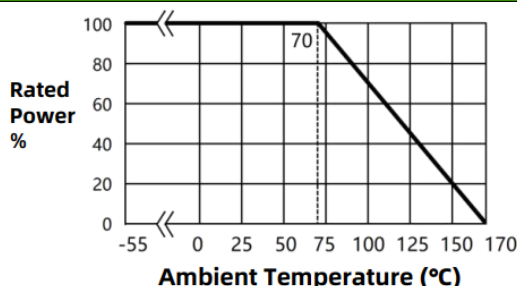
■ Recommended Land Pattern

The diagram illustrates a microstrip resonator structure. It consists of a central gap of width B between two black rectangular pads of length L and width A . The pads are connected to a central vertical strip. The entire structure is on a substrate. Labels include 'Cu Trace' pointing to the pads and 'Sensing Trace' pointing to the central strip. Dimensions L , B , and A are indicated with arrows.

Resistance	A	L	B
0Ω~200mΩ	1.8	4.7	1.8

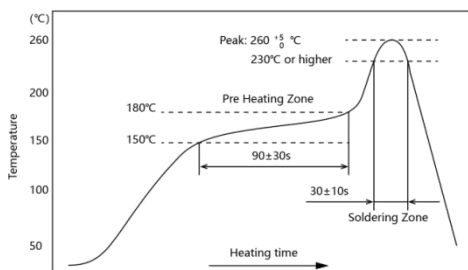
■ Derating Curve

When the resistor is operated at temperatures above 70°C, the rated power must be derated according to the Following curve

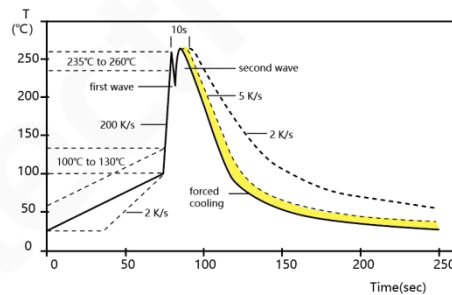


■ Soldering Recommendations

IR Reflow-Soldering Profile



Wave- Soldering Profile



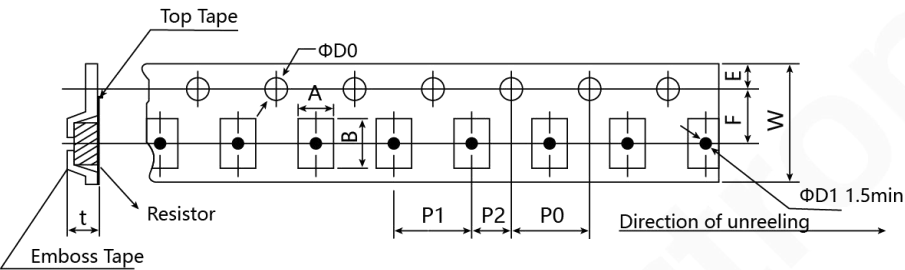
■ Reliability Testing

Test Item	Standard	Test Conditions	Test Limit
Temperature Coefficient of Resistance	IEC60115-1-4.8 JIS-C5201-4.8	+25°C~+125°C	Refer4.0
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"	<±1%
Short Time Overload	IEC60115-1-4.13 JIS-C5201-4.13	5 times rated power, 5 seconds	<±1%
Unloaded Humidity	IEC60115-1-4.24.2.1a) JIS-C5201-4.24.2.1a)	85°C, 85% relative humidity, 1000 hours	<±1%
Temperature Cycling	IEC60115-1-4.19 JIS-C5201-4.19	-55°C to +170°C, 1000 cycles, 15 minutes at each extreme condition	<±1%
Resistance to Soldering Heat	IEC60115-1-4.18 JIS-C5201-4.18	260 ± 5°C, 10 ± 1 seconds	<±0.5%
Solderability	IEC60115-1-4.17 JIS-C5201-4.17	245 ± 5°C, 2 ± 0.5 seconds	At least 95% of the electrode surface should be covered with new solder
High Temperature Exposure	IEC60115-1-4.23.2 JIS-C5201-4.23.2	170°C, 1000 hours	<±1%
Low Temperature Storage	IEC60115-1-4.23.4 JIS-C5201-4.23.4	-55°C, 1000 hours	<±1%
Substrate Bending	IEC60115-1-4.33 JIS-C5201-4.33	2mm bending width	<±0.5%
Insulation Resistance	IEC60115-1-4.6 JIS-C5201-4.6	100V DC for 1 minute	>100MΩ

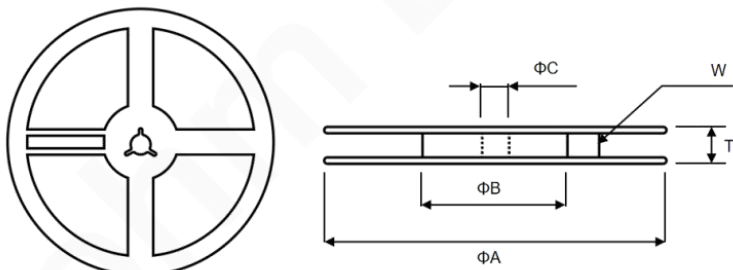
■ Rated current calculation formula

Rated current calculation formula			
$I = \sqrt{P/R}$	I	P	R
	Rated Current(A)	Rated Power(W)	Resistance(Ω)

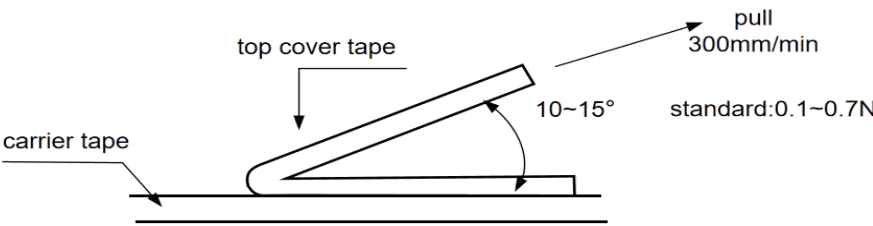
■ Tape Specifications

									
A	B	W	F	E	P1	P2	P0	D0	T
2.0±0.2	3.6±0.2	8±0.2	3.5±0.05	1.75±0.1	4.0±0.1	2±0.05	4±0.05	Φ1.55±0.1	1.05±0.15

■ Reel Specifications

					
ΦA	ΦB	ΦC	W	T	plaiting and rewinding
180±3	60±1	13±1	9±1	11.4±2	5000PCS

■ Peeling Strength of Top Cover Tape

Peel test: peel speed 300 mm/min; peel force 0.1N-0.7N	
	

■ Usage Precautions

- ◆ During the use of the product, pay attention to surface protection to prevent defects such as bumps and scratches on the product surface.
- ◆ When installing and using the product, avoid the product from being affected by mechanical stress.
- ◆ The long-term power of the product should be less than or equal to the rated power to avoid resistance drift caused by long-term overload.
- ◆ When using the product under high temperature or poor heat dissipation conditions, refer to the power consumption reduction curve for derating application.

■ Storage Instructions

- ◆ Product storage environment temperature is 5~35°C, humidity <60% RH, and humidity should be kept as low as possible.
- ◆ The product should be stored in a clean , dry& harmful gases free environment.
- ◆ Avoid removing the product from the packaging before use.
- ◆ Under the above storage conditions, the product can be guaranteed 1 year.

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■ Revision of curriculum vitae >

Version number	Revision date	Contents of the modification	Reason for modification	Reviewer
Ho-A1	2023-11-08	Temperature drift coefficient changed from 75ppm to 50ppm	Product upgrades	HUANG YONGKANG
Ho-A2	2024-07-29	Increased resistance range, updated datasheet content, and layout.	Harmonization of formats	HUANG YONGKANG
Ho-A3	2024-11-14	Updated specification content layout	Harmonization of formats	HUANG YONGKANG
Ho-A4	2025-03-15	Increase OR and application range	Product upgrades	HUANG YONGKANG