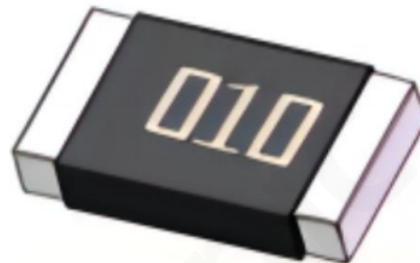


HoJLR0805 Series Encapsulated Alloy Resistors Datasheet

■ 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 $TCR \times 10^{-6} / ^\circ C \pm 50 ppm$



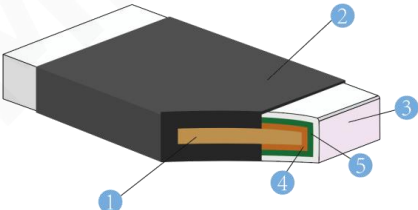
■ Scope of Application

- 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
0805	1/2W	0Ω	/	-55℃~+170℃	±1% ±2% ±5%	50A
0805 (S)		1mΩ	±100 ppm/℃			22.4A
0805		2mΩ				15.8A
0805		3mΩ≤R≤20mΩ	±50 ppm/℃			12.9A

■ Product Construction

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



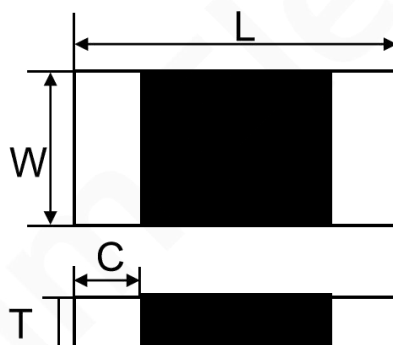
■ Part Number Selection

Example: HoJLR0805-1/2W-10mR-1% Encapsulated alloy resistor 0805 1/2W 10mΩ 1% small electrode

Ho	J L R	0805	1/2W	10mR	1%	
↓	↓	↓	↓	↓	↓	↓
Manufacture	Series	Encapsulated alloy	Rated Power	Resistance Value	Tolerance	
Milliohm	Encapsulated alloy	0805	1/2W	0R-20mR	±1% ±2% ±5%	"s" represents large electrode (standard small electrode will not display)

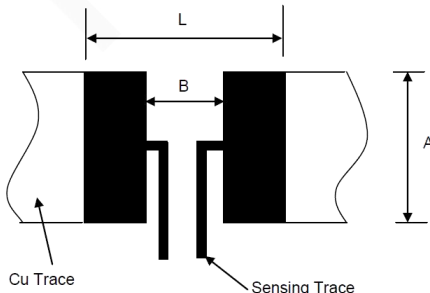
For specific parameters, please check the details on the following page

■ Product Dimensions (mm)



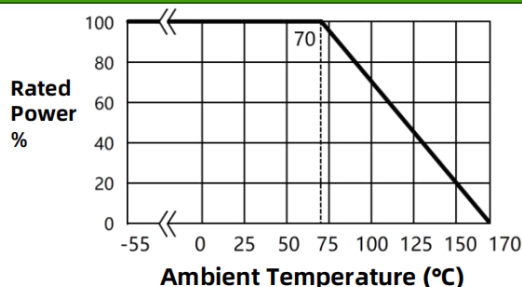
Size	Resistance	L	W	C	T
0805	0R~20mR	2.0±0.1	1.25±0.1	0.4±0.2	0.65±0.2
0805(S)	1mR	2.0±0.1	1.25±0.1	0.7±0.2	0.65±0.2

■ Recommended Land Pattern

	Size	A	L	B
	0805	1.4±0.1	1.2±0.1	1.15±0.1
	0805(S)	1.4±0.1	0.7±0.1	1.15±0.1

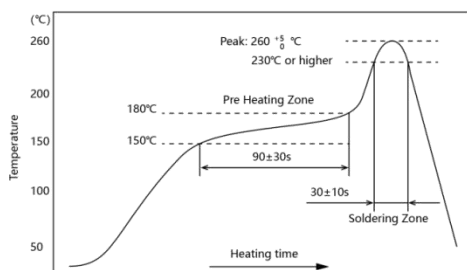
■ Derating Curve

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

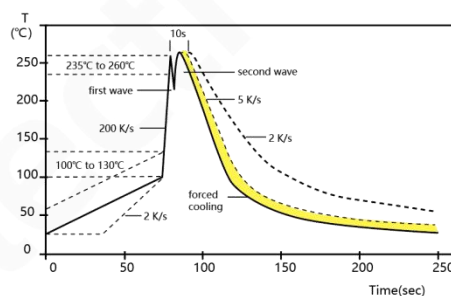


■ Soldering Recommendations

IR Reflow-Soldering Profile



Wave- Soldering Profile



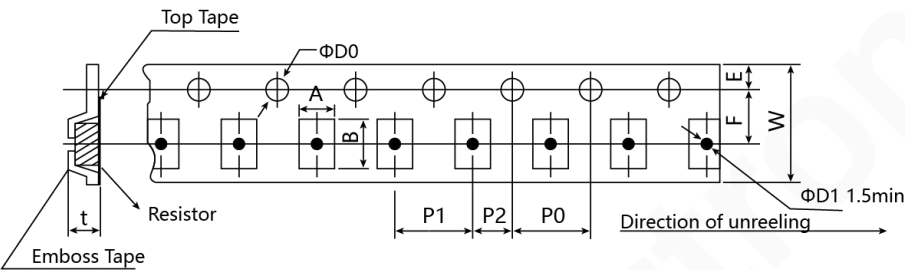
■ Reliability Testing

Test Item	Standard	Test Conditions	Test Limit
Temperature Coefficient of Resistance	IEC60115-1-4.8 JIS-C5201-4.8	+25°C~+125°C	Refer 4.0
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

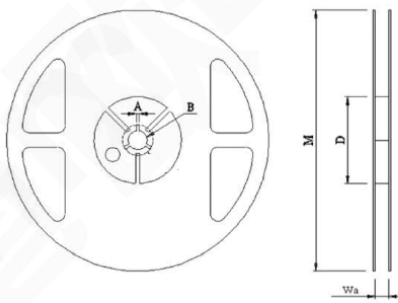
■ Rated current calculation formula

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

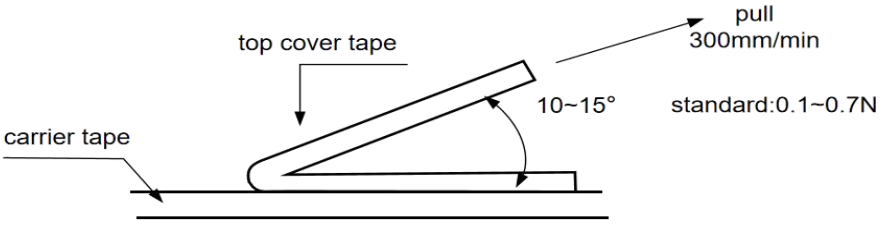
■ Tape Specifications

									
A	B	W	F	E	P1	P2	P0	D0	T
1.6±0.2	2.4±0.2	8±0.2	3.5±0.05	1.75±0.1	4.0±0.1	2±0.05	4±0.05	Φ1.5±0.1	0.84±0.15

■ Reel Specifications

					
ΦD	ΦM	ΦB	W	A	plaiting and rewinding
60±1	178±2	13.5±1	9±0.5	2±0.5	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	2024-07-29	Update resistance range Updated specification content and layout	Product upgrades Harmonization of formats	HUANG YONGKANG
Ho-A2	2024-11-14	Updated specification content layout	Harmonization of formats	HUANG YONGKANG
Ho-A3	2024-12-07	Detailed update of resistance temperature drift range	Product upgrades	XIE YUWU
Ho-A4	2025-03-15	Increased range of applications	Harmonization of formats	XIE YUWU