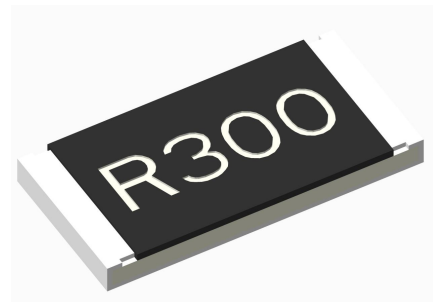


HoJLRH1206-Ceramic Thin Film High Power Resistors Series Specifications

■ Features

- ① Large Electrode (All series)
- ② Pb-free to Meet RoHS Requirements
- ③ Good Performance for Heat Dissipation
- ④ High Purity Alumina Substrate for High Power Dissipation
- ⑤ Low Resistance and High Accuracy Resistor for Current Detection



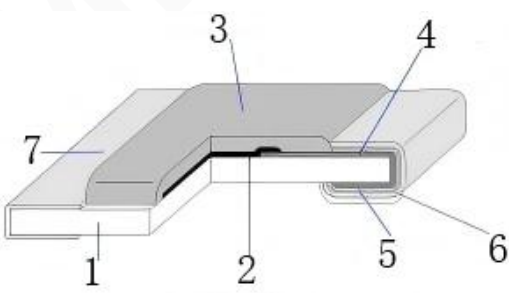
■ Application Areas

- ① Switching Power Supply
- ② Power Management Applications
- ③ Voltage Regulation Module (VRM)
- ④ DC-DC Converter, Battery Pack, Charger, Adaptor
- ⑤ Portable Instruments (PDA and Cell Phone)/ Computer

■ Electrical parameters

Product Model	power	Resistance Range	temperature coefficient TCR	Operating Temperature Range	Resistance Accuracy	Insulation impedance	operating voltage
JLRH1206	1/2W 1W	101mΩ ~ 910mΩ	±100 ppm/°C	-55°C~+155°C	±1% ±2% ±5%	Over 100MΩ	(P*R) ^{1/2}

■ Product Structure

		Item No.	Part name
		1	Ceramic Substrate
		2	Nichrome
		3	Over coat
		4	Conductor: (Lead-free)
		5	Cu Plating
		6	Ni Plating
		7	Sn Plating



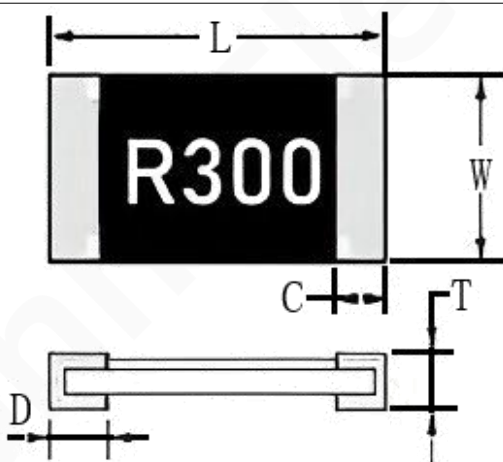
■ Product Selection

Selection Example: HoJLRH1206-1W-300mR-1%

<u>Ho</u> ↓	<u>JLRH</u> ↓	<u>1206</u> ↓	<u>1W</u> ↓	<u>300mR</u> ↓	<u>1%</u> ↓
Manufacturer	Product Series	Package	Rated Power	Resistance Value	Tolerance
Ho	JLRH	1206	1/2W 1W	101mΩ~910mΩ	±1% ±2% ±5%

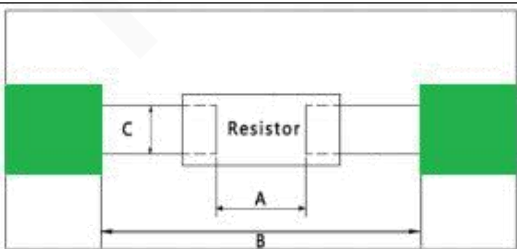
For specific parameters, please check the details on the following page

■ Product Size(unit : mm)



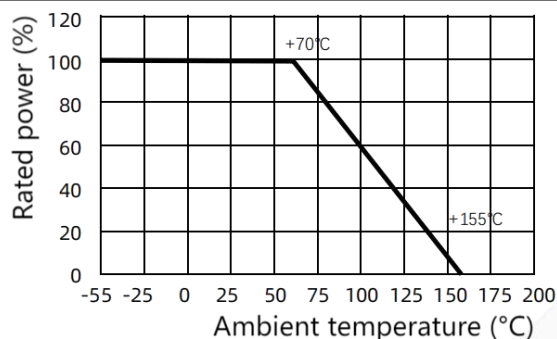
Package	L	W	C	D	T
1206	3.1±0.1	1.55±0.2	0.5±0.3	0.4±0.2	0.55±0.1

■ Recommended Pad Size

	Package	A	B	C
	1206	1.6-2.0	4.4-5.0	1.2-1.8

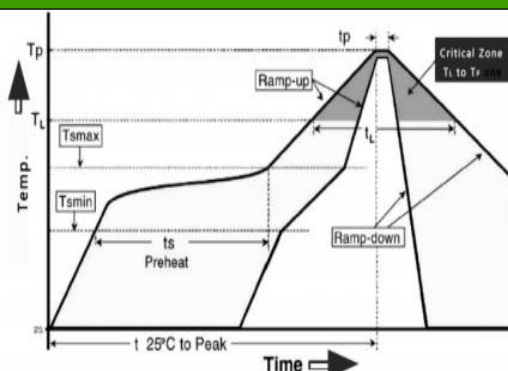
■ Power Derating Curve

Operating Temperature Range -55 to +155°C Resistance Temperature up to 70°C Power Reduction Diagram



■ Recommended welding parameters

Reflow IR Reflow Soldering Introduction



Parameter	Lead-free Assembly
Average ramp-up rate (T _s max to T _p)	3°C / second max.
Preheat - Temperature Min (T_s min) - Temperature Max (T_s max) - Time (T_s min to T_s max) (t_s)	150°C 200°C 60 -120 seconds
Time maintained above : - Temperature (T_L) - Time (T_L)	217°C 60-150 seconds
Peak Temperature (T _p)	260°C
Time within +0/-5 °C of actual Peak Temperature (t _p) ²	10 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8minutes max.

■ Reliability Test

Item	Reference Standard	Test Condition	Specification
Short Time Overload	IEC60115-1-4.13 JIS-C5201-1-4.13	5 times rated power, 5 seconds	±(1% + 0.5mΩ)
Temperature Coefficient	JIS C 5201-1 4.8	+25°C ~ +125°C	Refer to
Damp Heat	MIL-STD-202 Method 103	10% rated power, 85°C, relative humidity:85%, 1000 hours. Measure 24 hours after test completion	±(5.0% + 0.5mΩ)
Load Life	IEC60115-1-4.25.1 JIS-C5201-1-4.25.1	1000 hours at rated power, 70° C, "ON" for 1.5 hours / "OFF" for 0.5 hours	±(5.0% + 0.5mΩ)
Temperature Cycling	IEC60115-1-4.19 JIS-C5201-1-4.19	-55°C (15 min) / +150°C (15 min), 1000 cycles	±(1.0% + 0.5mΩ)
Solderability	IEC60115-1-4.17 JIS-C5201-1-4.17	Soldering at 45±5°C, dwell time 2±0.5s. Solder: Sn96.5/ Ag3.0/Cu0.5	Electrode new tin coverage ≥ 95%
Resistance to Soldering Heat	IEC60115-1-4.18 JIS-C5201-1-4.18	Soldering at 270±5°C, dwell time 10±1s	±(1.0% + 0.5mΩ)
Substrate Bending	IEC60115-1-4.33 JIS-C5201-1-4.33	Bending width: 2mm	±(1.0% + 0.5mΩ)
High Temperature Exposure (Storage)	MIL-STD-202 Method 108	T=155°C, 1000 hours. Measure 24 hours after test completion	±(1.0% + 0.5mΩ)

■ Resistance Code

Resistance Code

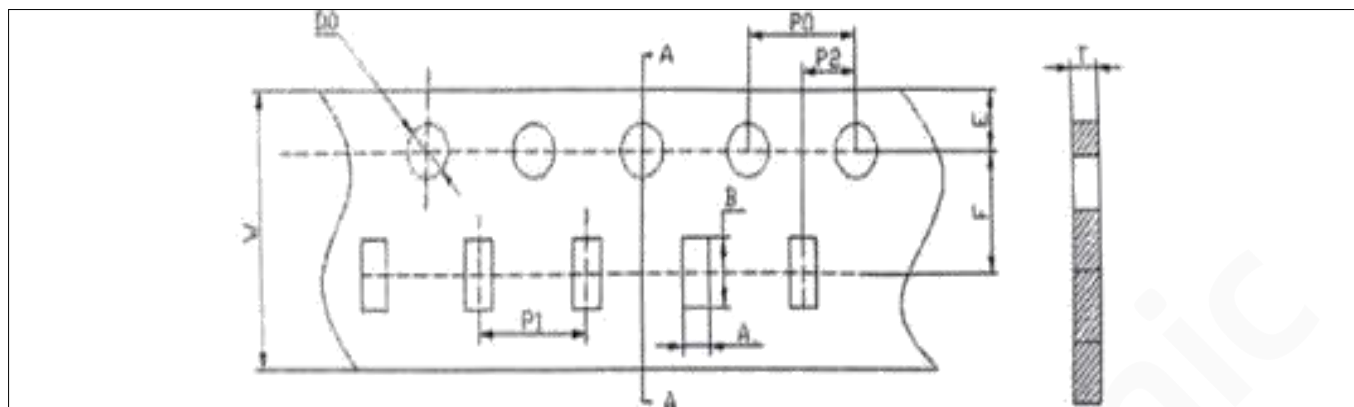
The resistance value is expressed by four digits, the first 'R' indicates the decimal point, and the other digits indicate the nominal resistance value. EX.: R300 = 300mΩ

■ Rated current calculation formula

Rated current calculation formula

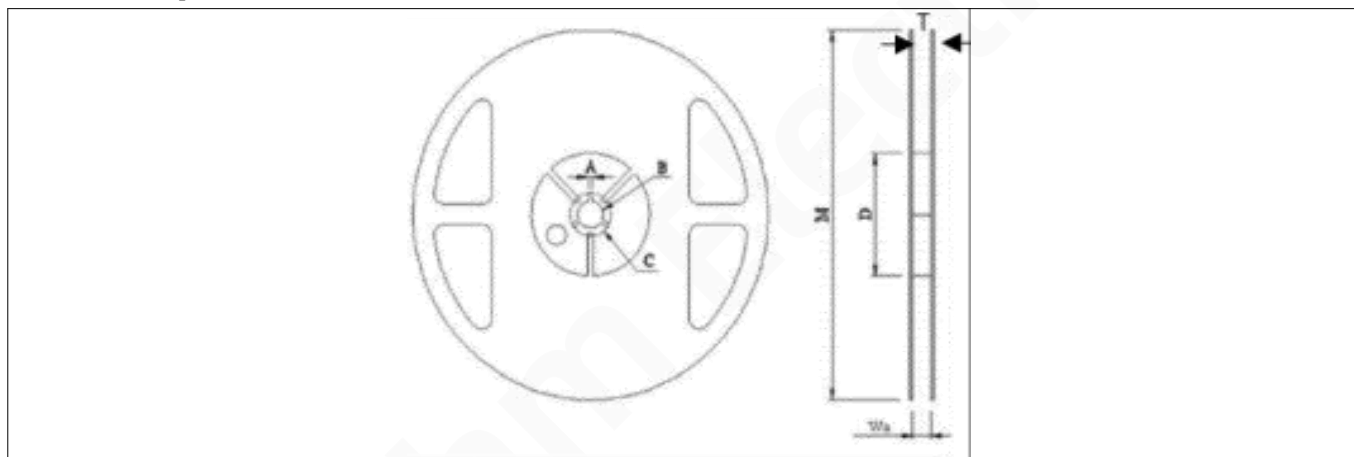
$I = \sqrt{P/R}$	I	P	R
	rated current(A)	rating(W)	resistance value(Ω)

■ Carrier tape size



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	Φ1.5±0.1	0.84±0.15

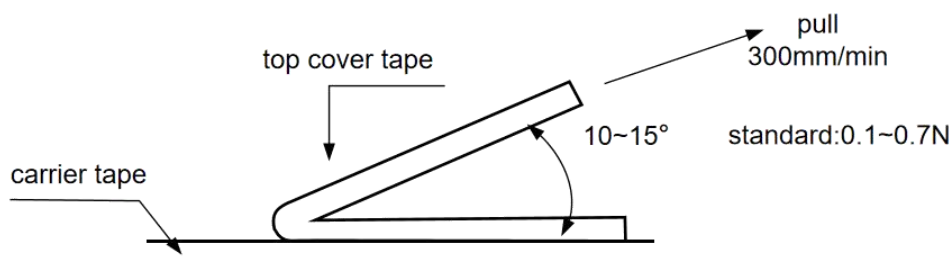
■ Reel Specifications



A	B	C	D	M	Wa	T	plaiting and rewinding
2.0±0.5	13±1	21±0.5	60±1	178±2	9.00±1.0	11.5±1.5	5000PCS

■ Peel strength of the upper band

Peeling speed:300mm/min; peeling force between 0.1N and 0.7N



■ Usage Precautions

- ◆ During the use of the product, pay attention to the surface protection, to prevent the surface of the product bumps, scratches and other defects.
- ◆ Avoid mechanical stress when installing and using the product.
- ◆ The long-term use of the product power should be less than or equal to the rated power, to avoid long-term use of overload caused by the resistance drift.
- ◆ When using the product in high temperature or poor heat dissipation conditions, refer to the power reduction curve for derating applications.

■ Storage Instructions

- ◆ Product storage environment temperature is 5~35°C, humidity <65%RH, and humidity should be kept as low as possible.
- ◆ The products need to be stored in a clean and dry environment without harmful gases.
- ◆ Avoid removing the product from the braided package until it is used.
- ◆ Under the above storage conditions, the product can be kept for 1 year.
- ◆ For products older than 1 year, check the surface for oxidation and perform soldering tests.

■ disclaimer

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■ Revise your resume:

Version number	Date of revision	Modifications	Reason for modification	Change the person
Ho-A0	2025-02-25	first issue	YongkangHuang	Wenyi Leng