APPROVAL SHEET

Product Name : **Metal Strip Low Ohm**
- Long Terminal Resistor

Part No. : **RWL**

Description : **Size 0508**

For more contact information, please refer to our website: www.rideetech.com

Metal Strip Low Ohm - Long Terminal Resistor－RWL Series

■ Applications

- — Switching model power supply.
- — Notebook, Tablet PC
- — Battery pack.
- — Power Amplifier
- — Test Instrument.

■ Features

- — Extra Low Ohm and Precision (± 0,5%)
- — High Power Up to 4 Watts
- — Low Inductance design
- — RoHS Compliant

■ Part Number Explanation

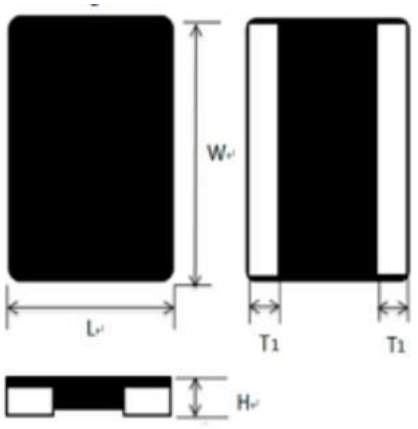
RWL	0508	2	07	F	R002	T	SB
Product	**Size (Inch)**	**Terminal**	**Watt**	**Tolerance**	**Resistance**	**Packaging**	**Functional**
Metal Strip Low Ohm - Long Terminal Resistor	0508	2 :2 terminals	07 : 3/4W 10 : 1W	F = ±1% G = ±2% J = ±5%	R005=5mΩ R002=2mΩ	T= Tape & Reel	SB= Standard Type (Low EMF) MB= Meet AEC-Q200 (Low EMF)

■ Standard Electrical Specifications

Item Type	Type of Terminal	Rated Power (W)	Max Working Current	Max Overload Current	T.C.R. (PPM/℃)	Alloy Type	Resistance Range F(± 1%) , G(±2%) , J(± 5%)
RWL 0508	2	3/4 W	27.38A	44.76A	±100	Low EMF	1mΩ≦R≦1.5mΩ
			19.36A	38.72A	±50		2mΩ≦R≦5mΩ
		1 W	31.62A	63.24A	±100	Low EMF	1mΩ≦R≦1.5mΩ
			22.36A	44.72A	±50		2mΩ≦R≦5mΩ

- Rating Terminal Temperature: 105℃ (do not exceed 105℃ when working)
- Beyond the above specification also can meet the special requirements. For detailed questions, please contact us freely.

■ Dimension



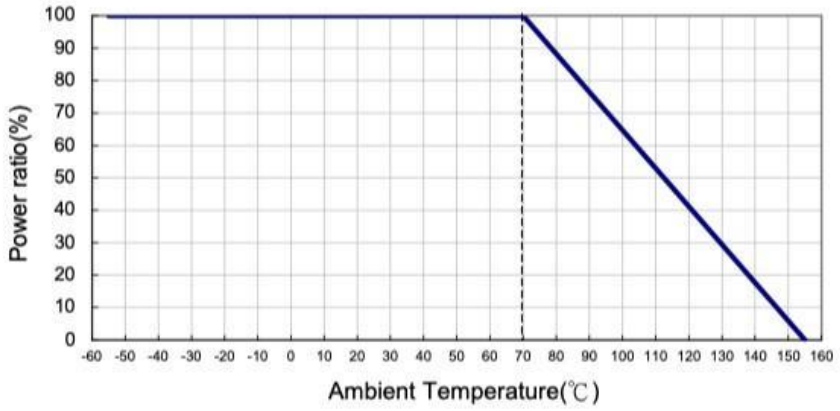
Unit: mm

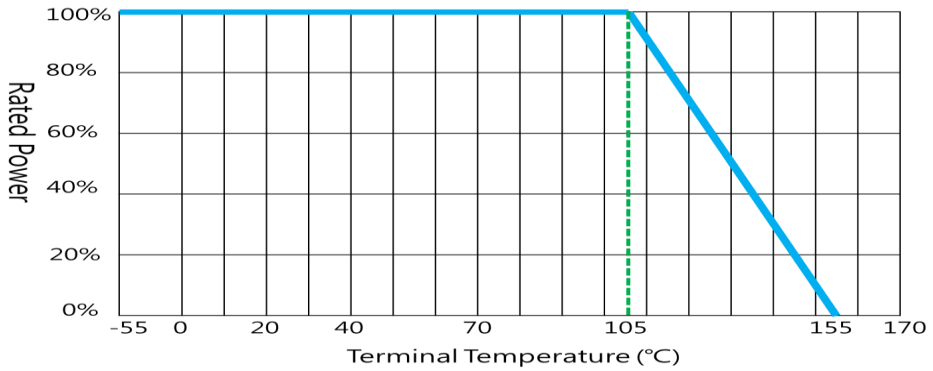
Size	Type of Terminal	Power Rating (W)	Resistance Range (mΩ)	L	W	H	T1
0508	2	3/4	1	1.25±0.20	2.00±0.20	0.40±0.10	0.38±0.15
		1	1.5 ~ 5				0.32±0.15

■ Performance Characteristics

■ Power Derating Curve

Operating Temperature Range: -55 to +155℃





■ Voltage Rating or Current Rating

Resistance Range: ≧1Ω

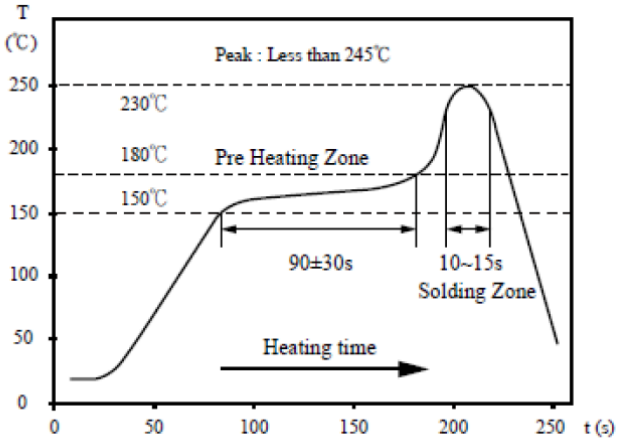
Rated Voltage: The resistor shall have a DC continuous working voltage or a RMS AC continuous working voltage at commercial-line frequency and wave form corresponding to the power rating, as determined formula as following:

E(RCWV)=√P×R

E=Rated voltage(V)
P=Power rating(W)
R=Nominal resistance(Ω)

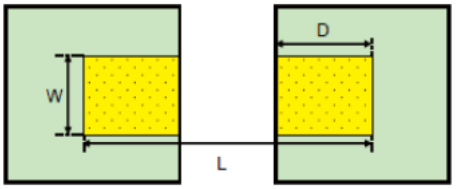
■ Soldering Conditions

Soldering Reference：Applicable for most industrial soldering request.
Compatible with reflow soldering. (Not compatible with wave soldering)



IR Reflow soldering.

■ Recommend Solder Pad Dimensions



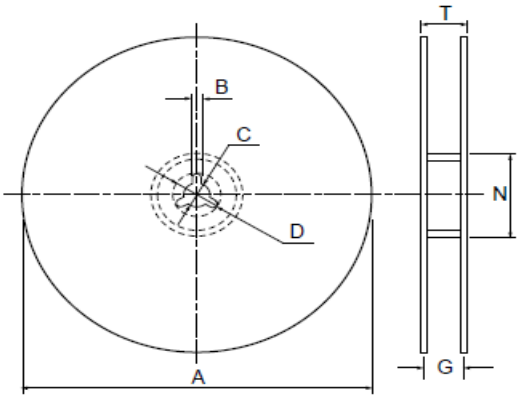
Unit: mm

Type	Resistance (mΩ)	W	D	L
0508	1	2.30	0.90	2.20
	1.5~5	2.30	0.85	2.20

■ Reliability Test and Requirement

Test Item	Test Method	Procedure	Requirements
Temperature Cycling	AEC-Q200 TABLE 7.4 IEC 60115-1 Clause 4.19	**AEC-Q200 TABLE 7.4** 1000 Cycles (-55℃ to +125℃) Measurement at 24± 4 hours after test conclusion. **IEC 60115-1 Clause 4.19 for General Type** Repeat 5 cycles as follows -55℃(30min.)→25℃(2~3min.)→155℃(30min.)→25℃(2~3min.)	ΔR ≦1 % No mechanical damage
Resistance to Solder Heat	AEC-Q200 TABLE 7.15	Solder dipping @ 260℃±5℃ for 10sec.±1sec.	ΔR ≦1 % No mechanical damage
Biased Humidity	AEC-Q200 TABLE 7.7	1000 hours 85℃/85%RH.10% of operation power. Measure at 24 ±2 hours after test end.	ΔR ≦1 %
High Temperature Exposure (Storage)	AEC-Q200 TABLE 7.3	1000 hrs. T=155℃ Unpowered. Measure at 24 ±2 hours after test end.	1~ 3 mΩ: ΔR≦ ±1% 4~5 mΩ: ΔR≦ ±2%
Operation Life	AEC-Q200 TABLE 7.8	Test 1000hr @ TA=125℃ at specified rated power. Measurement at 24±2 hours after test end.	ΔR≦ ±2%
External Visual	AEC-Q200 TABLE 7.9	Inspect appearance, marking and workmanship.	No visual damage and refer Ridee marking code.
Mechanical Shock	AEC-Q200 TABLE 7.13	Test Peak value: 100g's, Wave: Half-sine, Duration: 6ms, Velocity: 12.3ft/sec.	Within product specification tolerance and no visible damage
Vibration	AEC-Q200 TABLE 7.14	5 g's for 20 min., 12 cycles each of 3 orientations. Test from 10-2000 Hz.	ΔR≦ ±1% No mechanical damage.
ESD	AEC-Q200-002	Test contact min. 1KV.	ΔR≦ ±1% No mechanical damage.
Solderability	AEC-Q200 TABLE 7.18 IEC 60115-1, Clause 4. 17	**AEC-Q200 TABLE 7.18** a) Baking 155℃ 4H, dipping 235℃ 5s b) Steam 8H, dipping 215℃ 5s c) Steam 8H, dipping 260℃ 7s **IEC 60115-1, Clause 4. 17 for General Type** After immersing flux, dip in the 245±2℃ molten solder bath for 3±0.5 sec.	Over 95% of termination must be covered with solder.
Thermal Shock	AEC-Q200 TABLE 7.16	-55 to 155℃/ dwell time 15min/ Max transfer time 20sec/ 300cycles.s	ΔR≦ ±1% No mechanical damage.
Board Flex	AEC-Q200 TABLE 7.21	Bending 2mm. for 60 seconds	ΔR≦ ±1% No mechanical damage.
Short Time Overload	IEC 60115-1, Clause 4. 13	4 × Rated power for 5 seconds	ΔR≦ ±1%

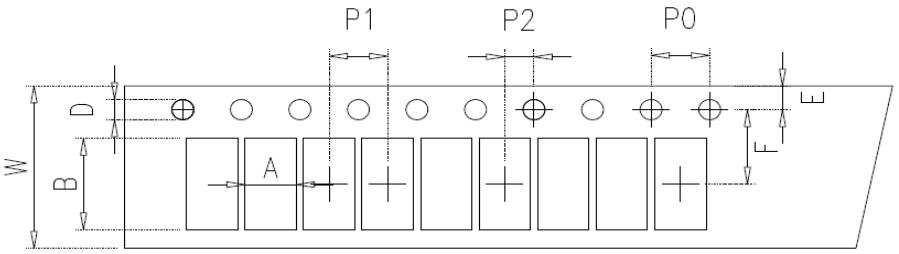
■ Packaging Information



Unit:mm

Size	Packaging Q'ty	A	N	C	D	B	G	T
0508	5K/Reel	178±2.0	60.0±0.5	13.0±0.5	20(Min.)	2.0±0.5	10.0±1.5	14.9max

■ Tapping Specification



Unit:mm

Packaging	Size	A	B	W	E	F	P0	P1	P2	D
Paper Type	0508	2.40±0.20	1.65±0.20	8.0±0.3	1.75±0.1	3.5±0.05	4.0±0.1	4.0±0.1	2.0±0.05	1.50+0.10/-0

■ Marking

- **RWL0508 : No Marking**