1W, 0612 Low Resistance Chip Resistor (Lead / Halogen Free)

1. Scope

This specification applies to 1.6mm x 3.2mm size 1W, fixed metal film chip resistors rectangular type for use in electronic equipment.

2. Type Designation

RL1632W - □ - □□□□ □

(1) (2) (3) (4)

Where (1) Series No.

(2) 6 = 1W

(3) Resistance value :

For example - -

R001 = 1mΩ

The " R " shall be used as a decimal point.

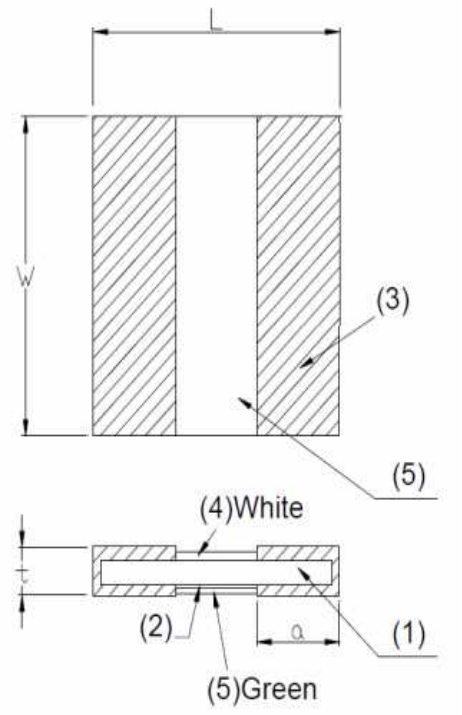
(4) Resistance value :

F = ± 1%

G = ± 2%

J = ± 5%

3. Outline Designation



(1) Substrate Alumina 96%
(2) Resistor Cu-alloy
(3) Terminals Sn (on Cu)
(4) Marking Heat resistive epoxy resin(White)
(5)Protection coat: Heat resistive epoxy resin(Green)

Code Letter	Dimensions (mm)
	RL1632W
L	1.6 ± 0.25
W	3.15 ± 0.25
a	0.35 ± 0.2
t	0.95 ± 0.25

Figure 1. Construction and Dimensions

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4. Ratings

4-1 Specification

Power Ratings *	1 W
Resistance Value	1 ~10mΩ
Resistance Tolerance	±1% 、±2% 、±5%
Temperature Coefficient of Resistance	±150ppm/℃ (Reflow)

Note *：

Power ratings is based on continuous full load operation at rated ambient temperature of 70℃. For resistors operated at ambient temperature in excess of 70℃, the maximum load shall be derated in accordance with the following curve.

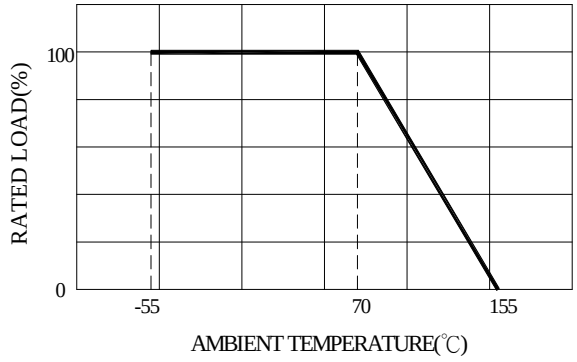


Figure 2.：Power Temperature Derating Curve

4-2 Rated Voltage

The rated voltage shall be determined by the following expression.

$V = \sqrt{P \times R}$ Where V：Rated voltage (V)

R：Nominal resistance value (Ω)

P：Rated dissipation (W)

4-3 Operating and Storage Temperature Range

-55 to +155℃

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5. Life test

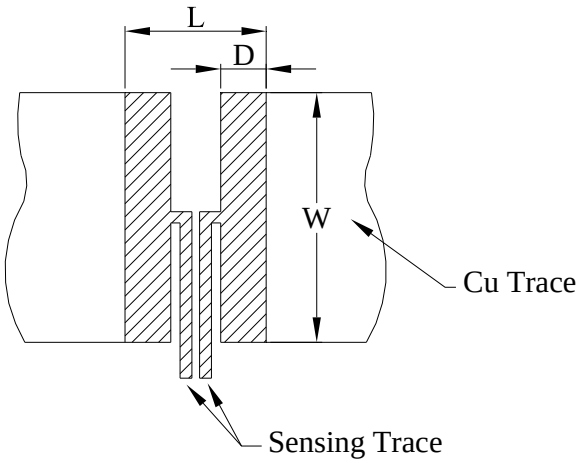
Test Item	Condition of Test	Requirements
Short Time Overload	2.5 * rated power for 5 seconds Refer to JIS C 5201-1 4.13	ΔR : ± 1.0%
Thermal Shock	-55 ~125℃ 100 cycles, 15 min at each extreme condition Refer to JIS C 5201-1 4.19	ΔR : ± 1.0%
Low Temperature Storage	Kept at -55℃, 1,000 hours Refer to JIS C 5201-1 4.23.4	ΔR : ± 2.0%
Load Life	Rated voltage for 1.5hours followed by a pause 0.5hour at 70 ± 3℃. Cycle repeated 1000 hours Refer to JIS C 5201-1 4.25	ΔR : ± 2.0%
Damp Heat with Load	40 ± 2℃ with relative humidity 90% to 95%. Cycle repeated 1,000 hours Refer to JIS C 5201-1 4.24	ΔR : ± 2.0%
High Temperature Exposure	Kept at 170℃ for 1,000 hours Refer to JIS C 5201-1 4.23.2	ΔR : ± 2.0%
Solderability	Temperature of Solder : 245 ± 5℃ Immersion Duration : 3 ± 0.5 seconds Refer to JIS C 5201-1 4.17	Uniform coating of solder cover minimum of 95% surface being immersed
Mechanical Shock	100 G's for 6milliseconds. 5 pulses Refer to JIS C 5201-1 4.21	ΔR : ± 1.0%
Bending Test	Glass-Epoxy board thickness : 1.6mm Bending width : 2mm Between the fulcrums : 90mm Refer to JIS C 5201-1 4.33	ΔR : ± 1.0%

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6. Recommend Land Pattern

	W	L	D
1632W	3.3	2.8	1.1

Unit : mm



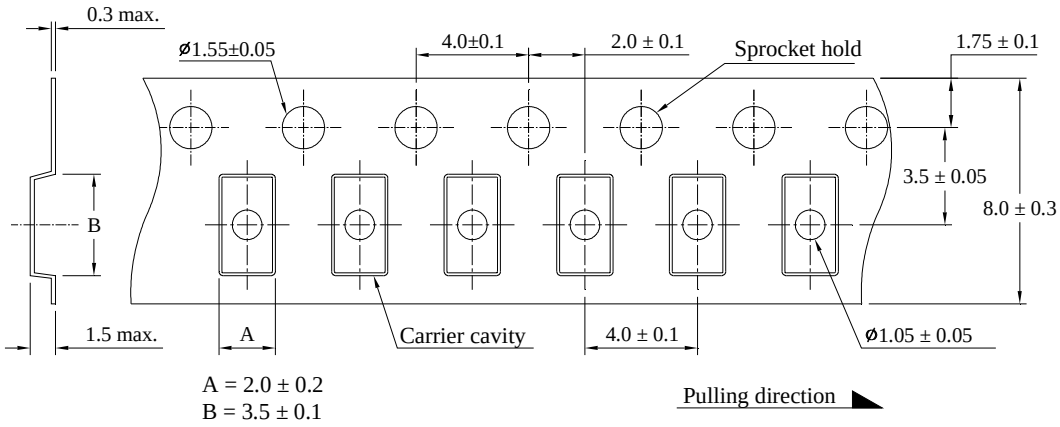
Note : We recommend there is no circuit design

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7. Packaging

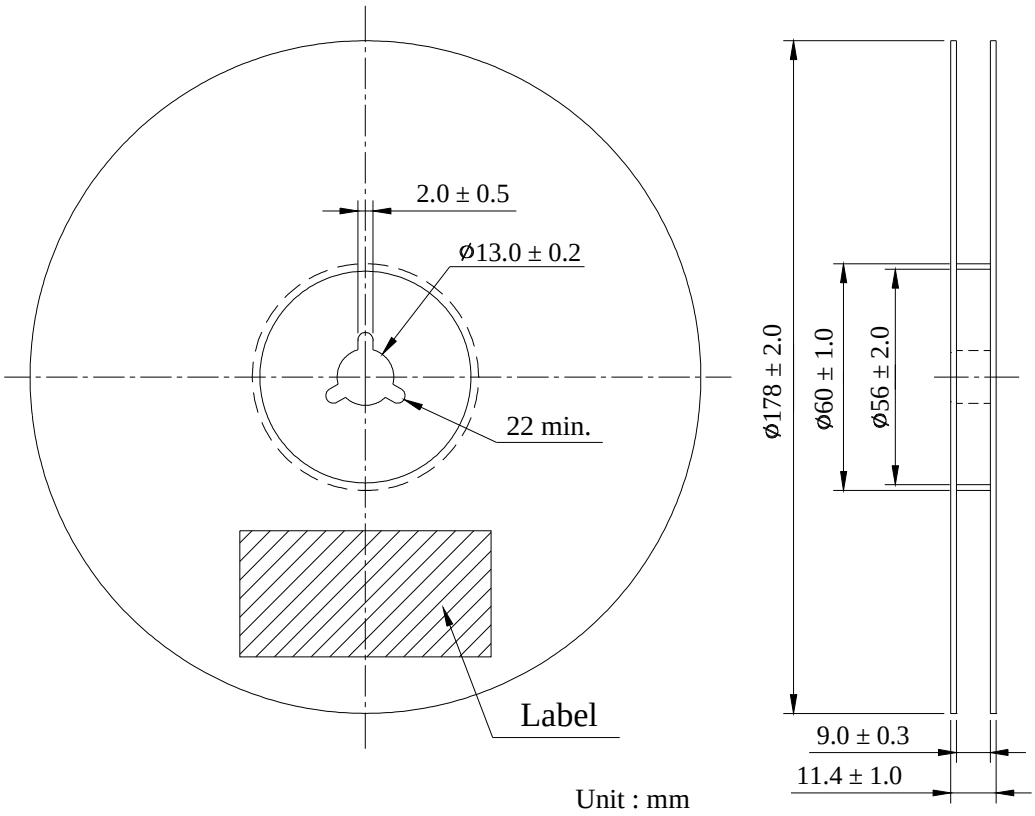
7-1 Dimensions

7-1-1 Tape packaging dimensions



Unit : mm

7-1-2 Reel dimensions



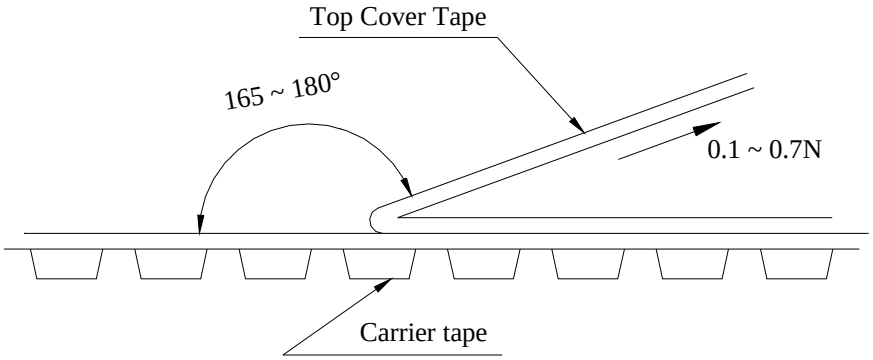
Unit : mm

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7-2 Peel Strength of Top Cover Tape

The peel speed shall be about 300mm/minute

The peel force of top cover tape shall between 0.1 to 0.7N



7-3 Number of Taping

4,000 pieces / reel

7-4 Label marking

The following items shall be marked on the reel.

(1) Type designation

(2) Quantity

(3) Manufacturing date code

(4) Manufacturer's name

(5) The country of origin

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