1W, 1206, LF Type Low Resistance Chip Resistor (Lead / Halogen Free)

1. Scope

   This specification applies to 1.6mm x 3.2mm size 1W.

2. Type Designation

   RLM – 1632 – 6F– □□□□ – □ NH

   (1) (2) (3) (4) (5)

   Where (1) Series No.

   (2) 6F = 1W

   (3) Resistance value : Four digits of number

   For example :

   R005 = 5mΩ

   R010 = 10mΩ

   (4) Tolerance :

   Refer to paragraph 4

   (5) NH = Sn plating (Lead free / Halogen free)

3. Dimensions and schematic

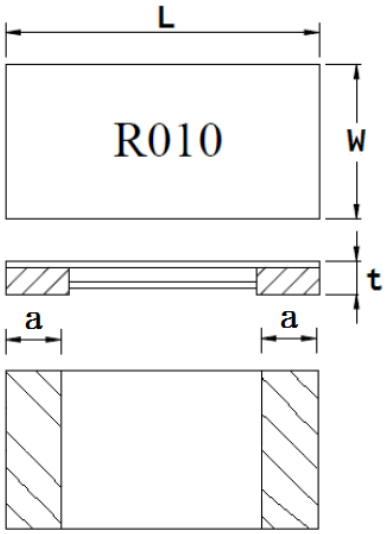


Figure 1. Construction and Dimensions

Code Letter	Dimensions (mm)	
	1632	
L	3.2 ± 0.20	
W	1.6 ± 0.20	
a	3mΩ	0.65 ± 0.15
	4~20mΩ	0.50 ± 0.15
t	0.6 ± 0.20	

Note: Marking (No Direction)

4. Specification

Characteristics	Feature
Power Rating*	1W
Resistance Value	3 ~ 20 mΩ
Temperature Coefficient of Resistance	± 100 ppm/℃
Operation Temperature Range	-55℃ ~ +170℃
Resistance Tolerance	± 1%(F), ± 2%(G), ± 5%(J)
Insulation Resistance	Over 100MΩ
Maximum Working Voltage (V)	$(P*R)^{1/2}$

Note * :

Power rating 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.

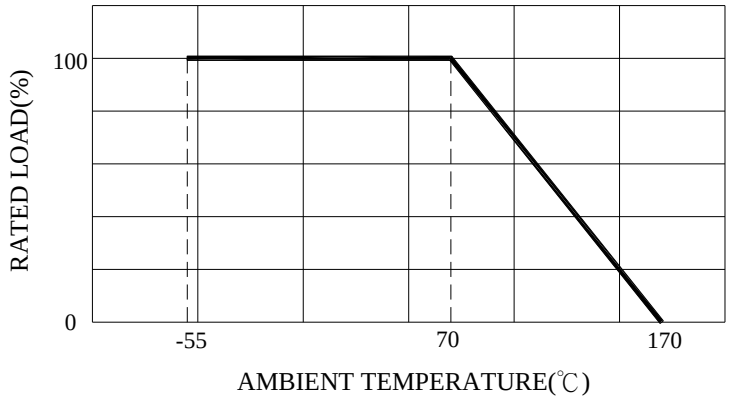


Figure 2.：Power Temperature Derating Curve

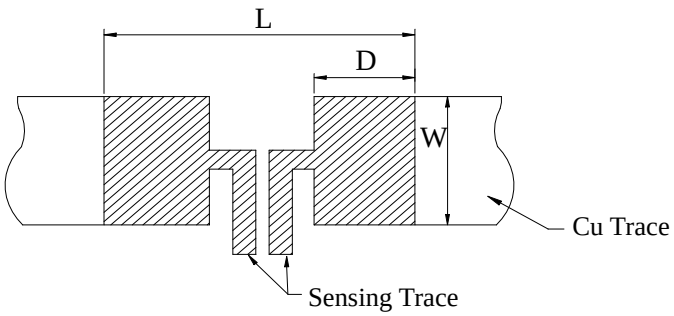
5. Reliability Performance

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 : ± 0.5%
High Temperature Exposure	Kept at 170℃ for 1,000 hours Refer to JIS C 5201-1 4.23.2	ΔR : ± 1.0%
Solderability	Temperature of Solder : 245 ± 5℃ Immersion Duration : 2 ± 0.5 second Refer to JIS C 5201-1 4.17	Uniform coating of solder cover minimum of 95% surface being immersed
Resistance to Soldering Heat	Dipped into solder at 270 ± 5℃ for 10 ± 1 seconds Refer to JIS C 5201-1 4.18	ΔR : ± 0.5%
Load Life	Rated voltage for 1.5 hours followed by a pause 0.5 hour at 70 ± 2℃. Cycle repeated 1000 hours Refer to JIS C 5201-1 4.25	ΔR : ±1.0%
Damp Heat with Load	40 ± 2℃ with relative humidity 90% to 95%. D.C. rated voltage for 1.5 hours ON and 30 minutes OFF. Cycle repeated 1,000 hours Refer to JIS C 5201-1 4.24	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 : ± 0.5%

6. Recommended Solder Pad Dimensions

	W (mm)	L (mm)	D (mm)	t (μm)
1632	1.78	4.14	1.37	105

t: Copper foil minimum thickness of PCB

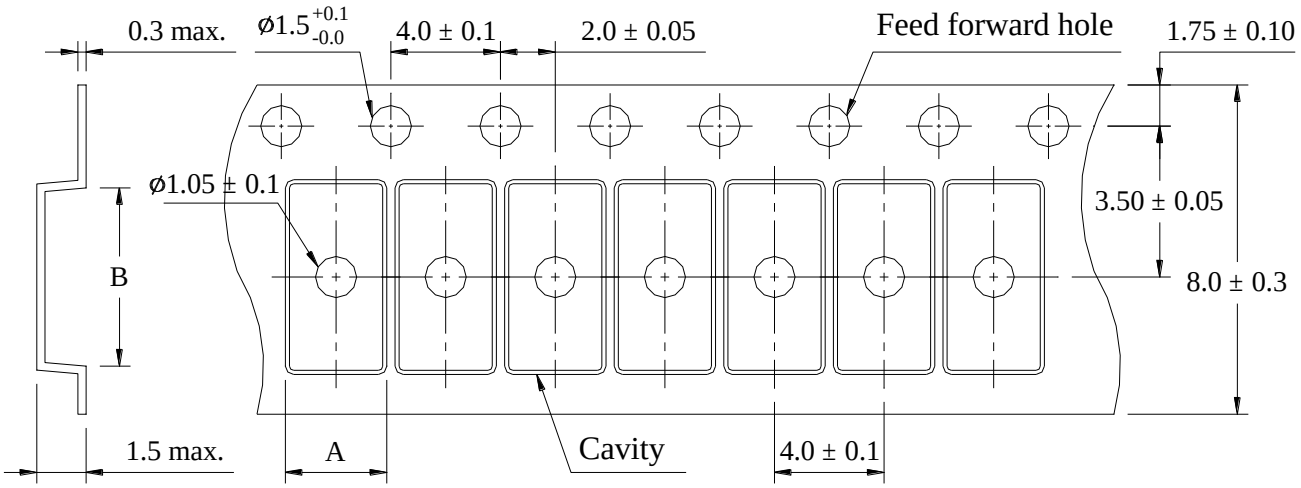


Note: We recommend there is no circuit design between pads to avoid circuit short.

7. Packaging

7-1 Dimensions

7-1-1 Tape packaging dimensions

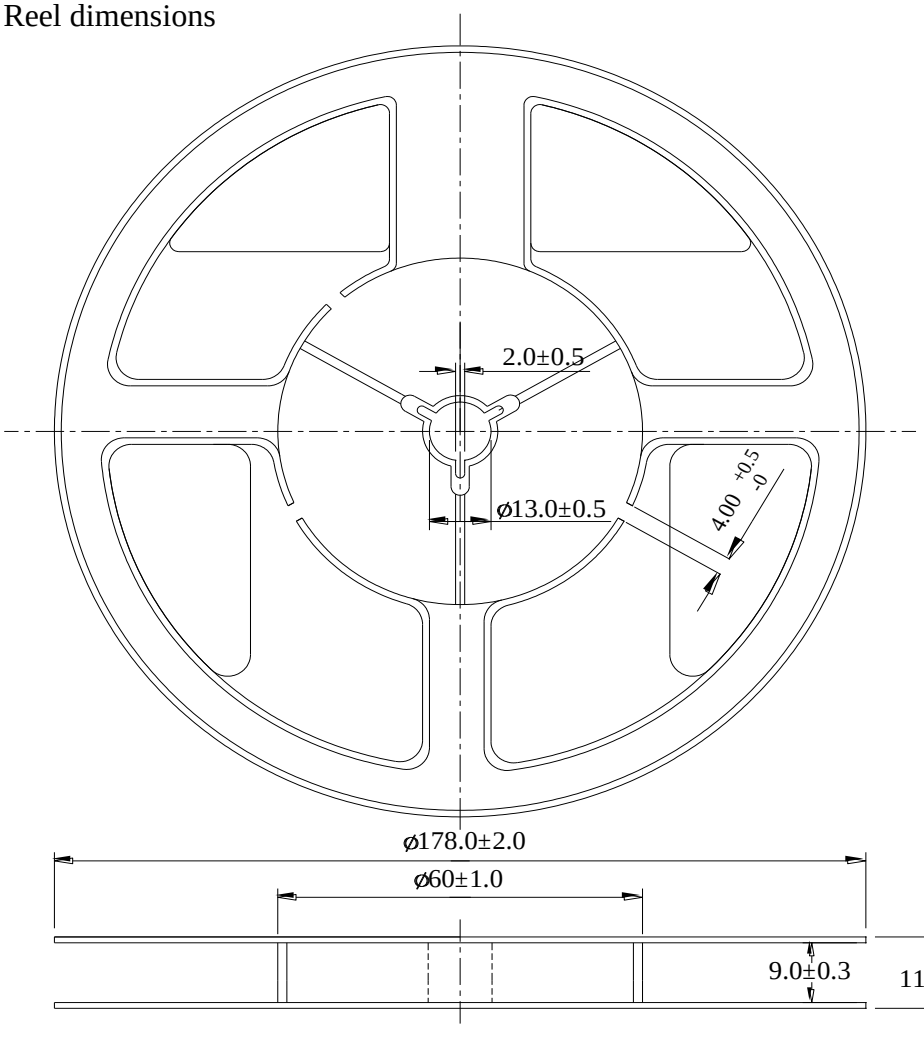


A = 2.0 ± 0.20

B = 3.6 ± 0.20

Unit : mm

7-1-2 Reel dimensions

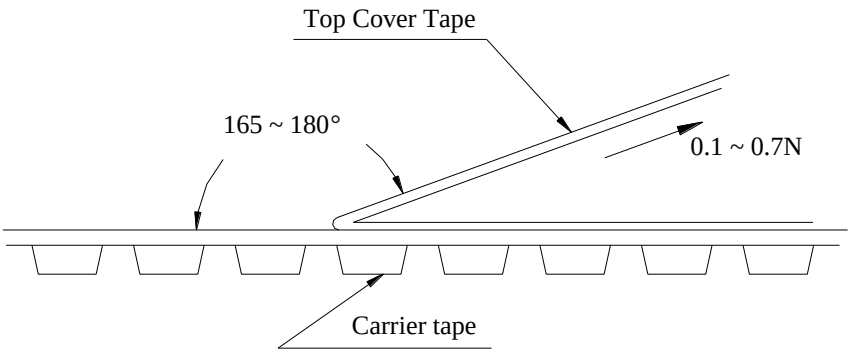


Unit : mm

7-2 Peel Strength of Top Cover Tape

The peel speed shall be about 300mm/min.

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