1. Scope

This specification applies to 1.6mm x 3.2mm size 1/2W, fixed metal film chip resistors rectangular type for use in electronic equipment.

2. Type Designation

RL1632 L - □□□□ - □

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

Where (1) Series No.

(2) L = L Type

(3) Resistance value :

For example - -

R050 = 50mΩ

R100 = 100mΩ

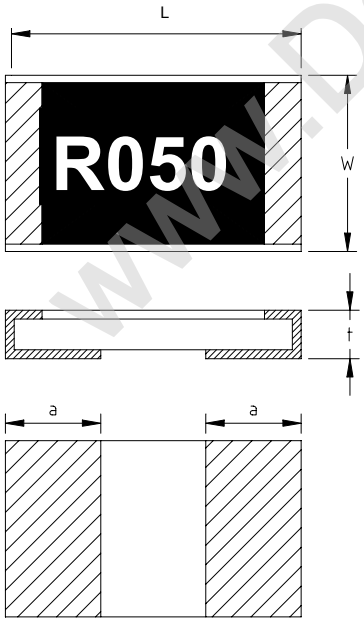
The " R " shall be used as a decimal point.

(4) Resistance value :

F = ± 1%

J = ± 5%

3. Type Designation



Code Letter	Dimensions (mm)
	RL1632L
L	3.2 ± 0.20
W	1.6 ± 0.20
a	1.0 ± 0.15
t	0.5 ± 0.15

ure 1. Construction and Dimensions

4. Ratings

4.1 Specification

Power Ratings *	1/2 W
Resistance Value	0.010Ω～0.5Ω
Resistance Tolerance	± 1% (F) 、± 5% (J)

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.

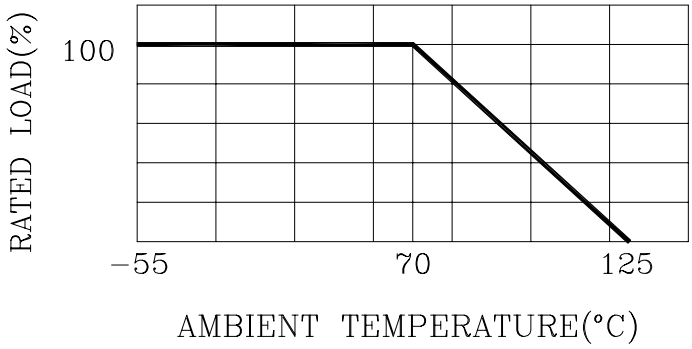


Figure 2 : Power Temperature Derating Curve

4.2 Maximum over current

$I = \sqrt{\langle 32 \times R \rangle}\,[A]/10ms$ Where I : maximum current

R : Nominal resistance value (Ω)

Interval 60 seconds minimum

If maximum current so obtained exceed than 32A , use 32A as maximum current.

4.3 Operation Temperature

-55℃ to +125℃

5. Life test

5-1 Electrical

5.1.1 Short Time Overload

Resistance Change : ± (0.5% + 0.0005Ω)
Without significant damage by flashover (spark, arching), burning or breakdown etc.
Test voltage : 2.5 times the rated voltage.
Duration : 5 seconds

5-2 Mechanical

5.2.1 Solderability

A new uniform coating of solder shall cover minimum of 95% of the surface being immersed.
Temperature of solder : 235 ± 5℃
Immersion duration : 3 ± 0.5 seconds

5.2.2 Resistance to Soldering Heat

Resistance change : ± (0.5% + 0.0005Ω)
Electrical characteristics shall be satisfied.
Without distinct deformation in appearance
Dipped into solder for 10 ± 1 sec. at 260 ± 5℃

5.2.3 Substrate bending

Resistance change : ± (0.5% + 0.0005Ω)
Without mechanical damage such as breaks.
Electrical characteristics shall be satisfied.
Glass-Epoxy bard t = 1.6mm
Bending value : 2mm
Between the fulcrums : 90mm

5-3 Endurance

5.3.1 Rapid change of temperature

Resistance change : ± (0.5% + 0.0005Ω)

Without distinct damage.

Perform 5 cycles as follows :

－55℃ for 30minutes → room temperature for 3 minutes

→＋125℃ for 30minutes → room temperature for 3 minutes

5.3.2 Endurance at 70℃

Resistance change : ± (0.5% + 0.0005Ω)

Without distinct damage.

Rated voltage for 1.5 hours followed by a pause 0.5 hour at a temperature of 70 ± 3℃.

Cycle shall be repeated for 1,000 hours.

5.3.3 Dump heat with load

Resistance change : ± (0.5% + 0.0005Ω)

The marking shall be legible.

60 ± 2℃ with relative humidity of 90% to 95%.

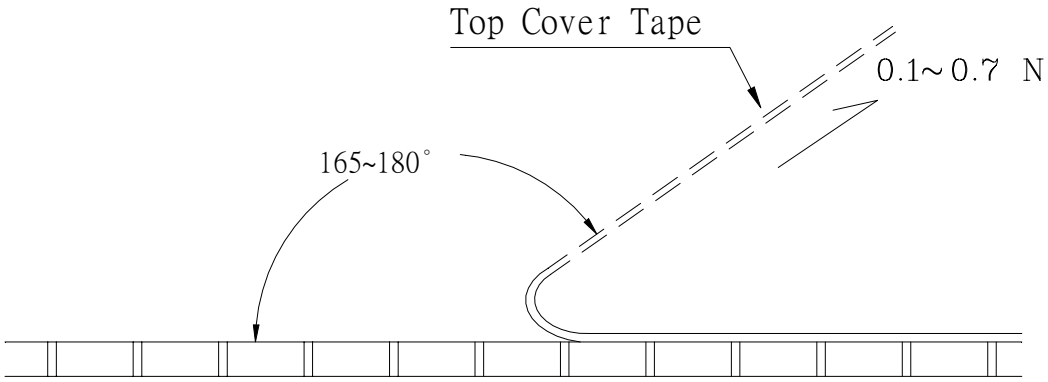
D.C. rated voltage for 1.5 hours ON 30 minutes OFF.

Cycle shall be repeated for 1,000 hours.

6. Peel Strength of Top Cover Tape

The peel speed shall be about 300mm/minute

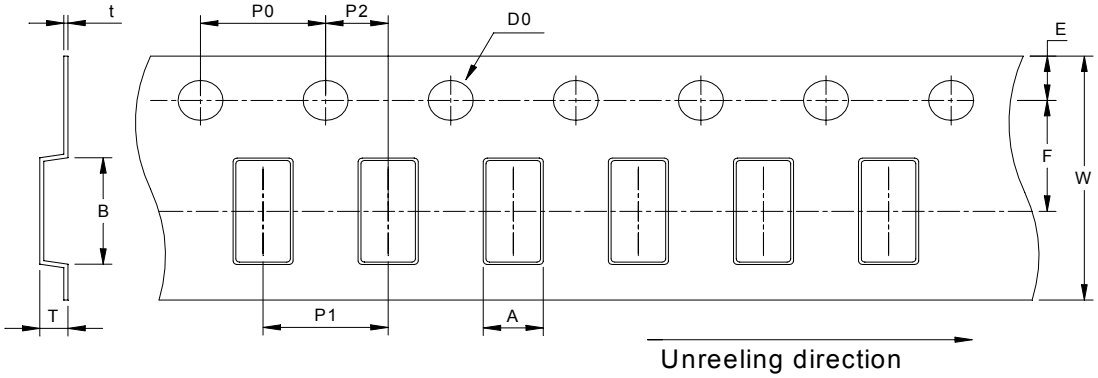
The peel force of top cover tape shall between 0.1 to 0.7N



7. Packaging

7-1 Dimensions

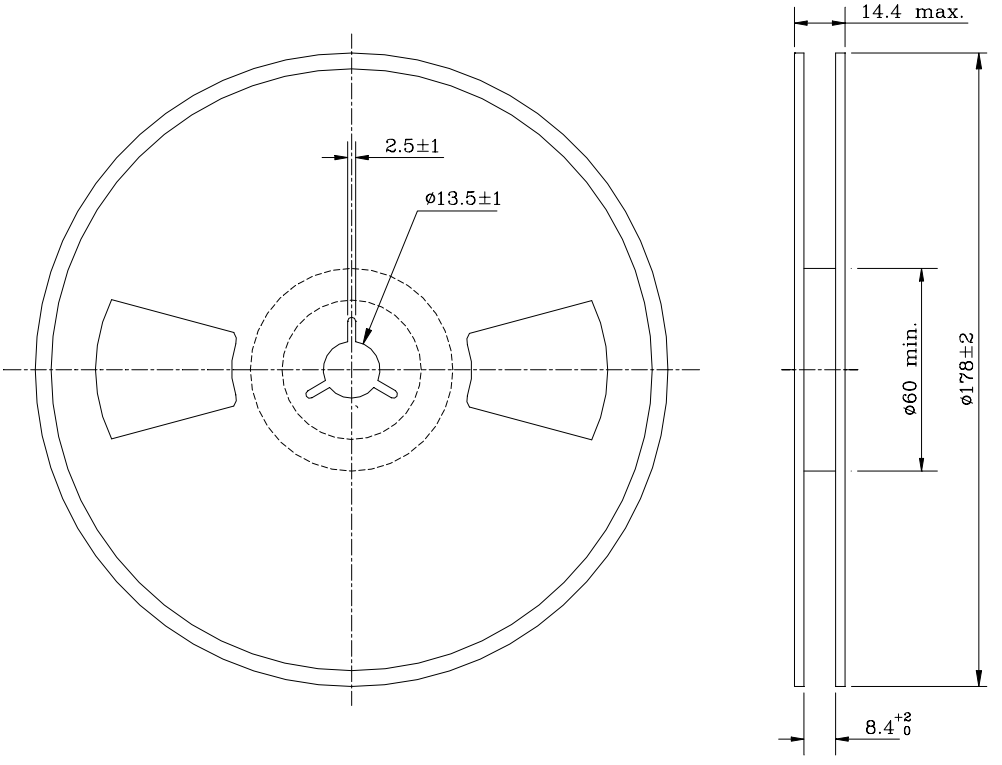
7-1-1 Tape packaging dimensions



A	2.00 ± 0.2	P0	4.0 ± 0.1
B	3.60 ± 0.2	P1	4.0 ± 0.1
W	8.00 ± 0.3	P2	2.0 ± 0.054
F	3.5 ± 0.05	D0	φ 1.5 $^{+0.1}_{-0.0}$
E	1.75 ± 0.1	T	1.5 maximum
		t	0.3 maximum

Unit : mm

7-1-2 Reel dimensions



Unit : mm

8. Number of Taping
   5,000 pieces / reel

9. 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