

2W, 2512, 4-Terminal, Low Resistance Chip Resistor (Lead / Halogen Free)

1. Scope

This specification applies to 3.2mm x 6.4mm size 2W, fixed metal foil with ceramic carrier current sensing resistors used in electronic equipment.

2. Type Designation

RL3264L4 □ - □□□□ □
 (1) (2) (3) (4)

Where (1) Series No.

(2) 9=2W

(3) Resistance value :

For example :

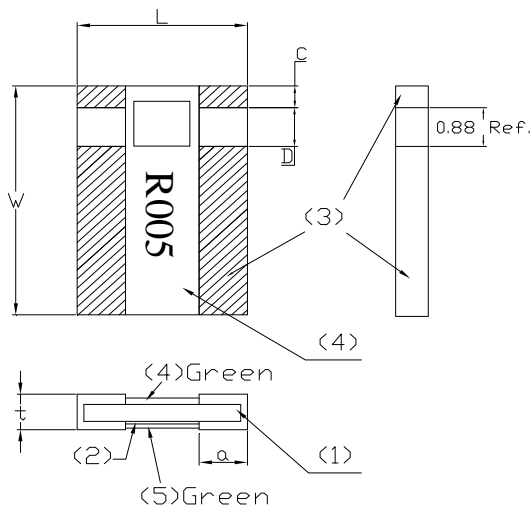
R005 = 5mΩ

(4) Tolerance :

F = ± 1% , G = ± 2% , H = ± 3% , J = ± 5%

3. Outline Designation

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



Code Letter	Dimensions (mm)
	3264
L	3.2 ± 0.25
W	6.4 ± 0.25
C	1.2 ± 0.2
D	0.88 ± 0.2
a	0.7 ± 0.2
t	0.9 ± 0.25

Figure 1. Construction and Dimensions

UNLESS OTHERWISE SPECIFIED TOLERANCES ON : X = ± X.X = ± X.XX = ± ANGLES ± HOLE DIA. ±	DRAWN BY : connie 4/3/13		台達電子工業股份有限公司 Delta Electronics, Inc.	
	DESIGNED BY :			
	CHECKED BY :			
	APPROVED BY :			
	SCALE : X	UNIT : X	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF Delta Electronics, Inc. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
TITLE :	The Engineering Specification for RL3264L4-9-XXXX-XNH	DOCUMENT NO.	SMK90000NH	PAGE REV. A0

4. Ratings

4-1 Specification

Power Rating*	2 W		
Resistance Value	1mΩ	3mΩ	5~15mΩ
Temperature Coefficient of Resistance	0~ -400ppm/°C	0~ -250ppm/°C	±150ppm/°C
Resistance Tolerance	± 1%,±2%,±3%,±5%		
Insulation Resistance	Over 100MΩ		
Rated Voltage (V)	$(P \cdot R)^{1/2}$		

Note * :

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

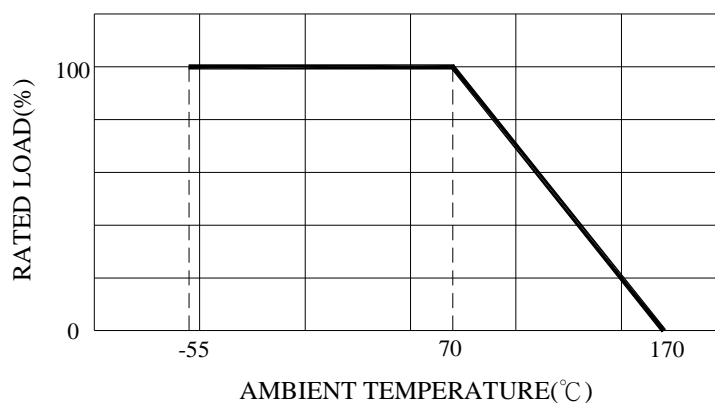


Figure 2. : Power Temperature Derating Curve

4-2 Operation and Storage Temperature Range

-55°C to +170°C

UNLESS OTHERWISE SPECIFIED
TOLERANCES ON :
X = ±
X.X = ±
X.XX = ±
ANGLES ± HOLE DIA. ±

DRAWN BY : connie 4/3/13
DESIGNED BY :
CHECKED BY :
APPROVED BY :
SCALE : X UNIT : X

台達電子工業股份有限公司
Delta Electronics, Inc.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF Delta Electronics, Inc.
AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE
MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : The Engineering Specification for
RL3264L4-9-XXXX-XNH

DOCUMENT
NO.

SMK90000NH

PAGE
REV.
A0

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	$\Delta R : \pm 1.0\%$
Thermal Shock	-55 ~125°C 100 cycles, 15 min at each extreme condition Refer to JIS C 5201-1 4.19	$\Delta R : \pm 1.0\%$
Low Temperature Storage	Kept at -55°C, 1,000 hours Refer to JIS C 5201-1 4.23.4	$\Delta R : \pm 2.0\%$
Load Life	Rated voltage for 1.5hours followed by a pause 0.5hour at $70 \pm 3^\circ\text{C}$. Cycle repeated 1000 hours Refer to JIS C 5201-1 4.25	$\Delta R : \pm 2.0\%$
Damp Heat with Load	$40 \pm 2^\circ\text{C}$ with relative humidity 90% to 95%. Cycle repeated 1,000 hours Refer to JIS C 5201-1 4.24	$\Delta R : \pm 2.0\%$
High Temperature Exposure	Kept at 170°C for 1,000 hours Refer to JIS C 5201-1 4.23.2	$\Delta R : \pm 2.0\%$
Solderability	Temperature of Solder : $245 \pm 5^\circ\text{C}$ 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	$\Delta R : \pm 1\%$
Bending Test	Glass-Epoxy board thickness : 1.6mm Bending width : 2mm Between the fulcrums : 90mm Refer to JIS C 5201-1 4.33	$\Delta R : \pm 1\%$

UNLESS OTHERWISE SPECIFIED
TOLERANCES ON :
X = \pm
X.X = \pm
X.XX = \pm
ANGLES \pm HOLE DIA. \pm

DRAWN BY : connie 4/3/13
DESIGNED BY :
CHECKED BY :
APPROVED BY :
SCALE : X UNIT : X

台達電子工業股份有限公司
Delta Electronics, Inc.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF Delta Electronics, Inc. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

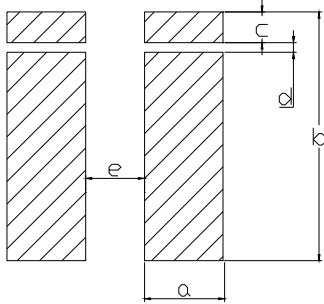
TITLE : The Engineering Specification for
RL3264L4-9-XXXX-XNH

DOCUMENT NO.

SMK90000NH

PAGE REV.
A0

6. Recommended Solder Pad Dimensions



RL3264L4	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	t (μ m)
1~20(m Ω)	1.1	7.34	1.74	0.8	1.8	105

t: Copper foil minimum thickness of PCB

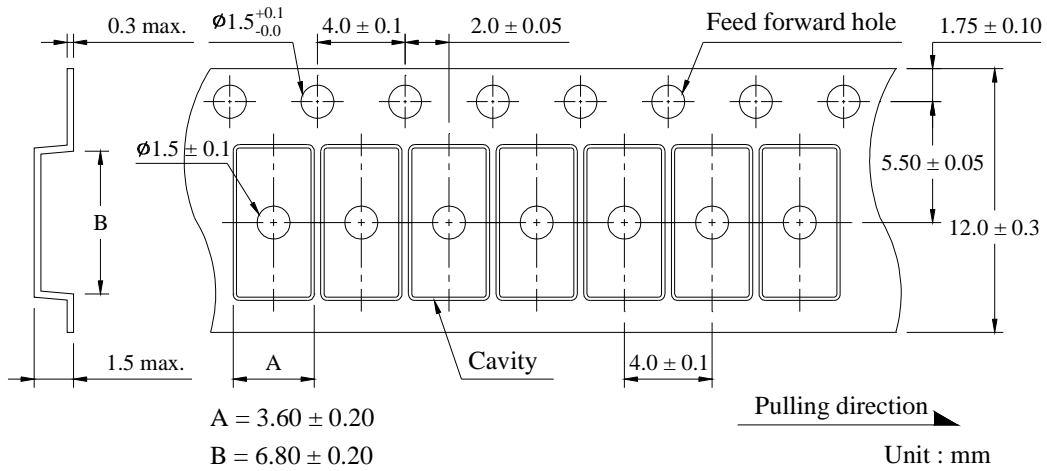
Note : We recommend there is no circuit design between pads to avoid circuit short

UNLESS OTHERWISE SPECIFIED TOLERANCES ON : X = \pm X.X = \pm X.XX = \pm ANGLES \pm HOLE DIA. \pm	DRAWN BY : connie 4/3/13		台達電子工業股份有限公司 Delta Electronics, Inc.
	DESIGNED BY :		
	CHECKED BY :		
	APPROVED BY :		THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF Delta Electronics, Inc. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
SCALE : X	UNIT : X		
TITLE : The Engineering Specification for RL3264L4-9-XXXX-XNH	DOCUMENT NO.	SMK90000NH	PAGE REV. A0

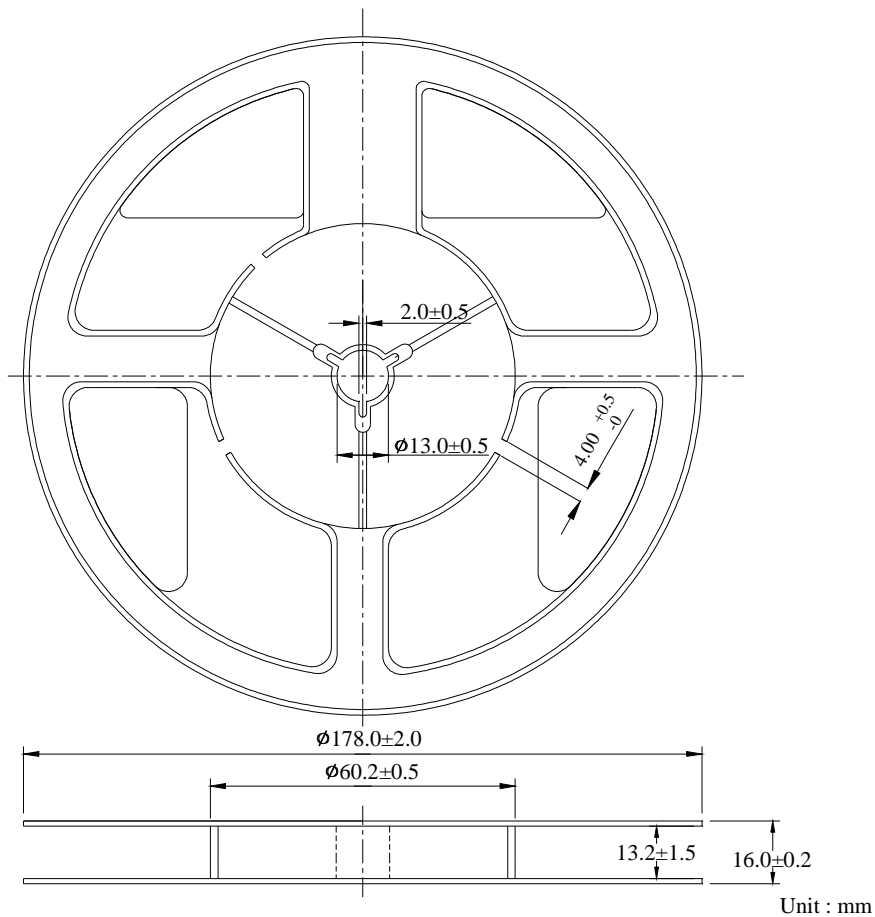
7. Packaging

7-1 Dimensions

7-1-1 Tape packaging dimensions



7-1-3 Reel dimensions



UNLESS OTHERWISE SPECIFIED
TOLERANCES ON :
X = \pm
X.X = \pm
X.XX = \pm
ANGLES \pm HOLE DIA. \pm

DRAWN BY : connie 4/3/13
DESIGNED BY :
CHECKED BY :
APPROVED BY :
SCALE : X UNIT : X

台達電子工業股份有限公司
Delta Electronics, Inc.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF Delta Electronics, Inc.
AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE
MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : The Engineering Specification for
RL3264L4-9-XXXX-XNH

DOCUMENT
NO.

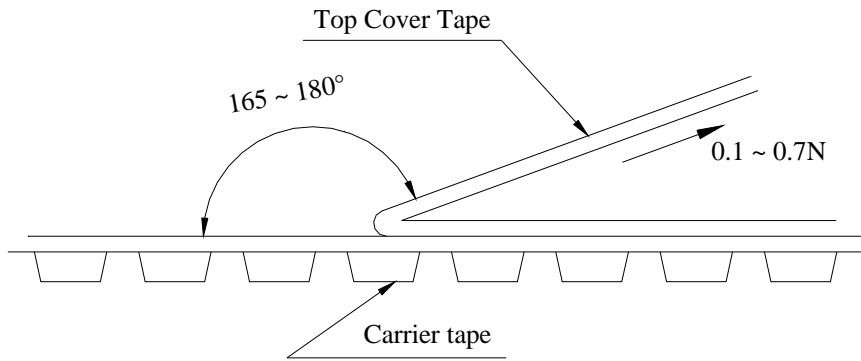
SMK90000NH

PAGE
REV.
A0

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

2,000 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

UNLESS OTHERWISE SPECIFIED TOLERANCES ON : X = ± X.X = ± X.XX = ± ANGLES ± HOLE DIA. ±	DRAWN BY : connie 4/3/13		台達電子工業股份有限公司 Delta Electronics, Inc.
	DESIGNED BY :		
	CHECKED BY :		
	APPROVED BY :		THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF Delta Electronics, Inc. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
SCALE : X	UNIT : X		
TITLE : The Engineering Specification for RL3264L4-9-XXXX-XNH	DOCUMENT NO.	SMK90000NH	PAGE REV. A0