

超合金低阻值貼片電阻

LR Series
Ultra Low Ohm (Metal Strip) Chip Resistor

FEATURE

- ◆ High Wattage Rating Up to 3W
- ◆ Low TCR $\pm 50, \pm 100$ PPM/°C
- ◆ Without Laser Trimmed with Very Low Inductance
- ◆ Resistance Values from 0.5 to 20 m ohms
- ◆ Customized Resistance Available
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- ◆ Without Laser Trimmed with Very Low Inductance

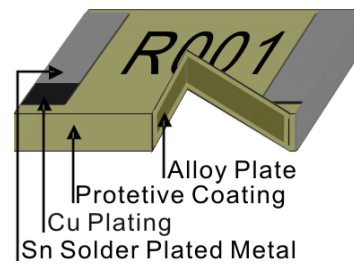
Applications

- ◆ NB (for Power Management)
- ◆ MB (for Power Management)
- ◆ SWPS (DC-DC Converter, Charger, Adaptor)
- ◆ Monitor (for Power Management)

FIGURE



CONSTRUCTION



ORDERING INFORMATION

Example: NLR12FD005RG

Power	Size	Type	Tolerance	TCR(°C)	Resistance	Coating	Packing
1W	2512	SLR12	F = $\pm 1\%$	S = ± 5 ppm	m5=0.0005R	B=Black	2K Reel
2W	2512	QLR12	D = $\pm 0.5\%$	B = ± 10 ppm	5m=0.005R	G=Green	2K Reel
2.5W	2512	PLR12	C = $\pm 0.25\%$	N = ± 15 ppm	50m=0.05R		2K Reel
3W	2512	NLR12	B = $\pm 0.1\%$	C = ± 25 ppm	500m=0.5R		2K Reel
			T = $\pm 0.01\%$	D = ± 50 ppm	1000m=1R		
				E = ± 100 ppm			

Body Marking

Black coating

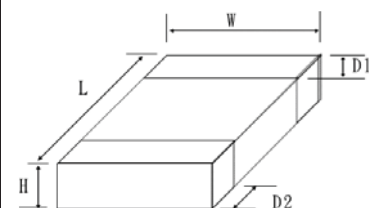


Green coating



DIMENSION

Resistance	Coating	Size	L	W	H	D1/D2
m5~m75	Green	2512	6.35 ± 0.25	3.18 ± 0.35	0.10 ± 0.35	1.93 ± 0.75
1m~22m					0.60 ± 0.20	1.93 ± 0.75
m5	Black	2512	6.35 ± 0.25	3.18 ± 0.35	1.40 ± 0.20	1.30 ± 0.30
m75					1.00 ± 0.20	1.30 ± 0.30
1m					0.80 ± 0.20	1.30 ± 0.30
1m5					0.65 ± 0.20	1.30 ± 0.30
2m					0.50 ± 0.20	1.30 ± 0.30
2m5					1.00 ± 0.20	1.30 ± 0.30
3m					0.70 ± 0.20	1.30 ± 0.30
3m5					0.71 ± 0.20	1.30 ± 0.30
4m					0.60 ± 0.20	1.30 ± 0.30
4m5					0.58 ± 0.20	1.30 ± 0.30
5m					0.50 ± 0.20	1.30 ± 0.30
5m5					0.47 ± 0.20	1.30 ± 0.30
6m					0.50 ± 0.20	1.30 ± 0.30
6m5					0.47 ± 0.20	1.30 ± 0.30
7m					0.45 ± 0.20	1.30 ± 0.30
10m					0.80 ± 0.20	1.95 ± 0.15



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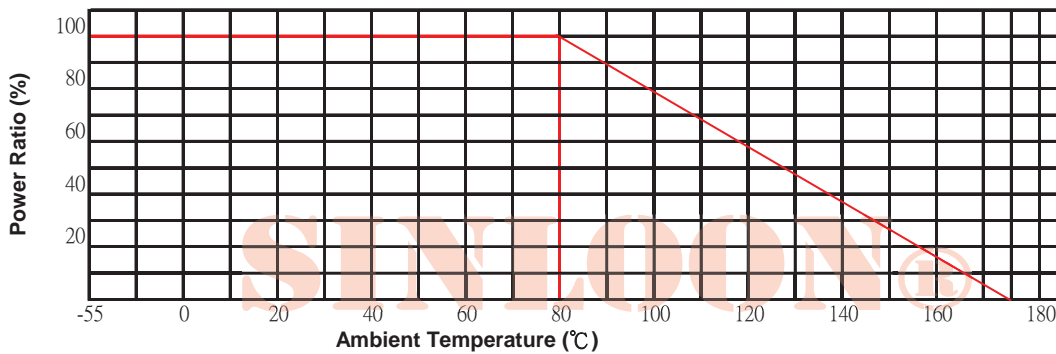
GENERAL ELECTRICAL SPECIFICATION

Power at 80°C	Size	Type	Resistance Range (Ω)	Tolerance (%)	TCR (ppm/°C)	Operating Temp. Range	Coating
1W	2512	SLR12	m5~2m	±1%, ±3%, ±5%.	50	-55°C ~ +170°C	Black
1W	2512	SLR12	2m5~3m		150		Black
1W	2512	SLR12	4m~5m5		100		Black
1W	2512	SLR12	6m~7m		75		Black
1W	2512	SLR12	10m		100		Black
1W	2512	SLR12	11m~20m		50		Black
2W	2512	QLR12	m5~10m		50		Green
2.5W	2512	PLR12	4m~6m		50		Green
3W	2512	NLR12	m5~m75		100		Green
3W	2512	NLR12	1m~2m		75		Green
3W	2512	NLR12	3m		50		Green

Operating Current $I = \sqrt{P/R}$; Operating Voltage: $V = \sqrt{P \cdot R}$

$E = \text{Rated voltage (V)}$ $E = \sqrt{R \cdot P}$ $P = \text{Power rating (W)}$ $R = \text{Nominal resistance (Ω)}$

POWER DERATING CURVE



In case resistors operating ambient temperature in excess of the temperature range -55°C ~ +155°C power ratio will be derated in accordance with the figure as shown on the right.

BELIABILITY TEST

(No.) ITEM	Specification Coating		TEST METHOD
	Black	Green	
(1) Temperature Coefficient of Resistor	As Specification		MIL-STD-202F-Method 304, +25/-55/+25/+125/+25°C.
(2) Thermal Shock	±0.5%	±1%	MIL-STD-202F-Method 107, -55°C ~ 150°C, 100 cycles.
(3) Short Time Overload	±0.5%	±1%	JIS-C-5202-5.5, 5x rated power, 5 seconds.
(4) Resistance to DRY Heat	±0.1%	±1%	JIS-C-5202-7.2, 96 hours @, 70°C, without load.
(5) Load Life	±0.1%	±1%	MIL-STD-202F-Method 108A, RCWV 70°C, 1.5 hours [ON], 0.5 hours [OFF], Total 1000 ~ 1048 hours.
(6) Resistance to Soldering Heat	±0.5%	±1%	MIL-STD-202F-Method 210E 260±5°C, 10±1 seconds.
(7) Solderability	95% min coverage		MIL-STD-202F-Method 210E 245 ±5°C, 2±0.5 seconds.

* Storage Temperature: 25±3°C; Humidity <80% RH

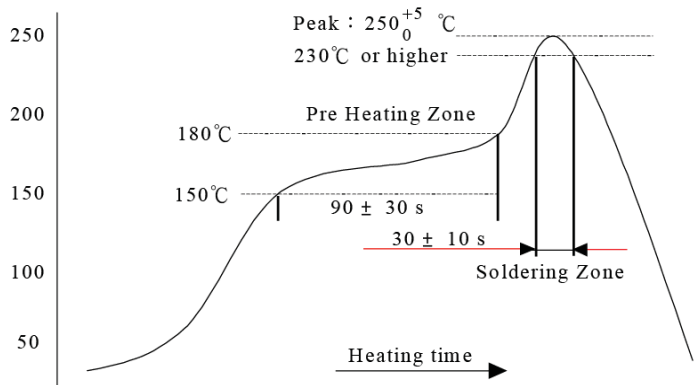


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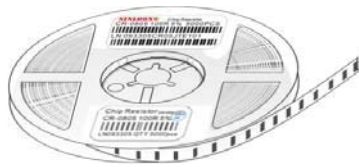
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SOLDERING PROFILE

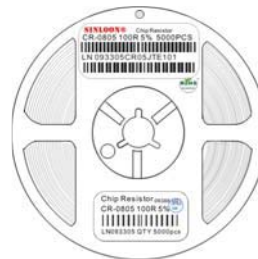


PACKAGE SPECIFICATION

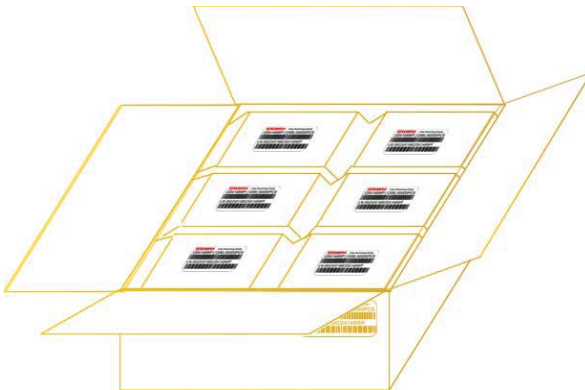
Power	Size	Type	Quantity(ea)			SINLOON® RoHS Compliant 品質承諾標誌 QUALITY COMMITMENT
			Paper Reel Tape	In Box	Carton	
1W	2512	SLR12	2000 pcs 7" Reel	20K pcs	120K pcs	
2W	2512	QLR12	2000 pcs 7" Reel	20K pcs	120K pcs	
2.5W	2512	PLR12	2000 pcs 7" Reel	20K pcs	120K pcs	
3W	2512	NLR12	2000 pcs 7" Reel	20K pcs	120K pcs	



Paper Reel Tape



Reel Tape Label



Carton Pack



In Box

