

低阻值厚膜貼片電阻

LCR Series

Low Ohm Thick Film Chip Resistor

FEATURE

- ◆ Smaller Size of 0402 is available.
- ◆ High Power: 0.5W (1218), 1W (1812), 2W (2512), 2W (2030).
- ◆ Reduction of assembly costs and matching with placement machines.
- ◆ Reliability, High quality and Fast delivery.
- ◆ Suitable for both reflow soldering and flow soldering.

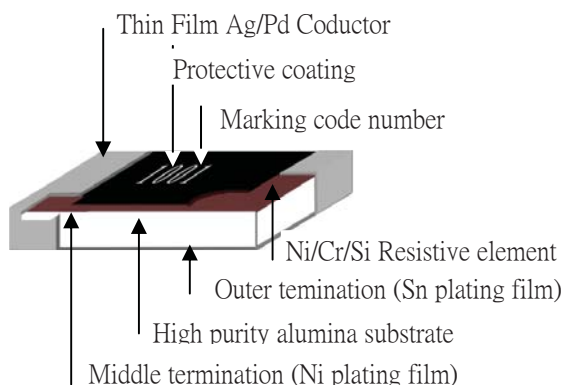
Applications

- ◆ Telecommunication equipments.
- ◆ Radio and Tape recorders.
- ◆ TV tuners.
- ◆ Video camera.
- ◆ Watches.
- ◆ Pocket calculators.
- ◆ Communication Device, Cell phone, GPS, PDA
- ◆ Medical and Military equipments.

FIGURE



CONSTRUCTION



ORDERING INFORMATION

Example: S-LCR25JR01GR

Power	Size	Type	Tolerance	Resistance	TCR(°C)	Packing
1/16W	0402	Y-LCR02	K = ±10% J = ±5% G = ±2% F = ±1%	10m = R01 Ω	G=±300ppm	R=Reel Type
1/10W	0603	X-LCR03		20m = R02 Ω	H=±400ppm	
1/8W	0805	W-LCR05		100m = R1 Ω	I=±500ppm	
1/4W	1206	V-LCR06		500m = R5 Ω	J=±600ppm	
1/3W	1210	K-LCR10			U=±700ppm	
1/2W	1812	U-LCR18		R01 = 0.01Ω	V=±800ppm	
	2010	U-LCR20		R02 = 0.02Ω		
1W	2512	S-LCR25		R10 = 0.1Ω		
	1218	S-LCR28		R50 = 0.5Ω		
2W	2512	Q-LCR25				
2W	2030	Q-LCR30				

Body Marking

LCR0201 ~ LCR-2512

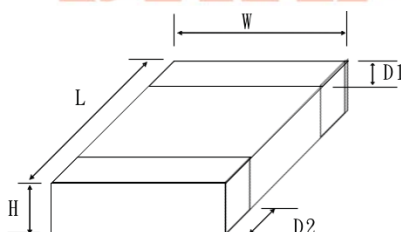


LCR-1812, LCR-2030



DIMENSION

Power	Size	Type	L	W	H	D1	D2
1/16W	0402	Y-LCR02	1.0±0.10	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10
1/10W	0603	X-LCR03	1.6±0.15	0.80±0.10	0.45±0.10	0.30±0.20	0.30±0.20
1/8W	0805	W-LCR05	2.0±0.15	1.25±0.10	0.50±0.10	0.35±0.20	0.40±0.20
1/4W	1206	V-LCR06	3.1±0.10	1.55±0.10	0.55±0.10	0.45±0.20	0.40±0.20
1/3W	1210	K-LCR10	3.1±0.10	2.55±0.10	0.55±0.10	0.50±0.20	0.50±0.20
1/2W	1812	U-LCR18	4.50 ±0.20	3.00 ±0.20	0.55 ±0.10	0.45±0.20	0.40±0.20
	2010	U-LCR20	5.0±0.20	2.50±0.20	0.55±0.10	0.60±0.20	0.50±0.20
1W	2512	S-LCR25	6.3±0.20	3.20±0.20	0.55±0.10	0.60±0.20	0.50±0.20
	1218	S-LCR28	3.1±0.10	4.60±0.20	0.55±0.10	0.45±0.20	0.40±0.20
2W	2512	Q-LCR25	6.3±0.20	3.20±0.20	0.55±0.10	0.60±0.20	0.50±0.20
2W	2030	Q-LCR30	5.2±0.20	7.60±0.20	0.76±0.10	0.80±0.20	0.80±0.20



低阻值厚膜貼片電阻

LCR Series

Low Ohm Thick Film Chip Resistor

Low Ohm Chip Resistor - LCR Series (Current Sensing Chip Resistor)

GENERAL ELECTRICAL SPECIFICATIONS

TYPE	Power at 70°C	Current Rated Vol.	Working Max. Vol.	Overload Max. Vol.	Resistance Range (m Ω) F(±1%),J(±5%)	T.C.R. (ppm/°C)	Temp. Range
Y-LCR0402	0.063W	0.13~0.87V	0.43V	0.86V	100m ~ 300m	±700	Operating Temperature Range : - 55 °C - 155 °C
					330m ~ 500m	±500	
					510m ~ 990m	±400	
X-LCR0603	0.1W	0.17~10.9V	0.55V	1.08V	50m ~ 91m	±1000	
					100m ~ 300m	±500	
					330m ~ 500m	±400	
W-LCR0805	0.125W	0.27~1.73V	0.61V	1.22V	510m ~ 990m	±300	
					10m ~ 49m	±1000	
					50m ~ 90m	±700	
V-LCR1206	0.25W	0.31~1.99V	0.86V	1.74V	100m ~ 300m	±600	
					330m ~ 500m	±400	
					510m ~ 990m	±300	
K-LCR1210	0.33W	0.13~0.87V	0.99V	1.98V	10m ~ 49m	±800	
					50m ~ 90m	±600	
					100m ~ 300m	±500	
U-LCR1812	0.5W	0.38~2.44V	1.22V	2.44V	330m ~ 500m	±300	
					510m ~ 990m	±300	
					10m ~ 49m	±800	
U-LCR2010	0.5W	0.38~2.44V	1.22V	2.44V	50m ~ 90m	±600	
					100m ~ 300m	±500	
					330m ~ 500m	±400	
S-LCR1218	1W	0.54~3.45V	1.72V	3.46V	510m ~ 990m	±400	
					10m ~ 49m	±800	
					50m ~ 90m	±400	
S-LCR2512	1W	0.1~0.99V	0.99V	2.475V	100m ~ 300m	±300	
					330m ~ 500m	±300	
					510m ~ 990m	±300	
Q-LCR2512	2W	0.14 ~1.41V	1.407V	3.518V	10m ~ 49m	±800	
					50m ~ 90m	±700	
					100m ~ 300m	±500	
Q-LCR2030	2W	0.76~4.88V	2.44V	4.88V	330m ~ 990m	±400	
					20m ~ 990m	±800	
						±1500	

低阻值厚膜貼片電阻

LCR Series

Low Ohm Thick Film Chip Resistor

BELIABILITY TEST

ITEM	SPECIFICATION	TEST METHOD
(1) Temperature Coefficient of Resistance	As Specification	JIS-C-5202 5.2/IEC 60115-1 4.8 +25/-55, +25/125, +155/+25℃.
(2) Thermal Shock	$\pm(1.0+0.05\Omega)$	MIL-STD-202F, Method 107 -55℃~125,155℃,5 cycles
(3) Short Time Overload	$\pm(2.0+0.05\Omega)$	MIL-R-55342D 4.7.5 RCWV*2.5 or Max Overloading Voltage, 5 seconds
(4) High Temperature Exposure	$\pm(2.0+0.05\Omega)$	MIL-R-55342D 4.7.6 1000 hours @ +125℃ without load
(5) Load Life	$\pm(3.0+0.05\Omega)$	MIL-STD-202F M108 RCWV, 70℃, 1.5 hours on, 0.5 hours off total 1000~1048 hours
(6) Resistance to Soldering Heat	$\pm(1.0+0.05\Omega)$	MIL-R-55342D 4.7.7 260±5℃, 10±1seconds
(7) Moisture Resistance	$\pm(2.0+0.05\Omega)$	MIL-STD-202F, Method 103 40℃, 90~95%RH, 1000 hours
(8) Low Temperature Operation	$\pm(1.0+0.05\Omega)$	MIL-R-55342D 4.7.4 1hour, -55℃, followed by 45 minutes of RCWV
(9) Bending Strenght	$\pm(1.0+0.05\Omega)$	JIS-C-5202 6.1.4 5 mm deflection in either direction, 10 seconds
(10) Solderability	95% min coverage	MIL-STD-202F-Method 208H 235±5℃, 2±0.5seconds

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

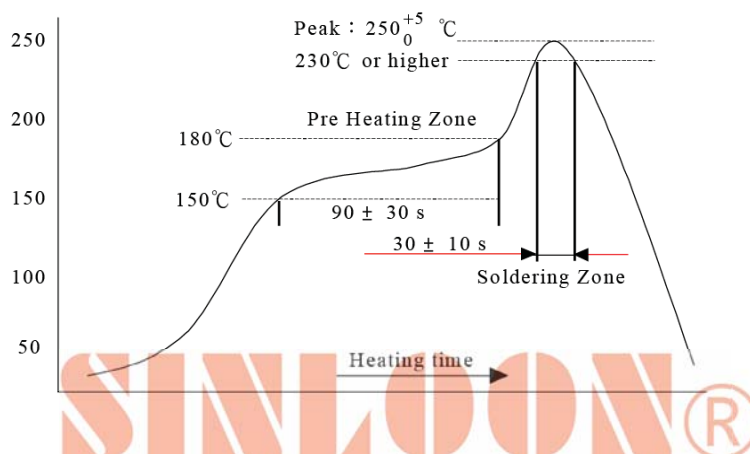
VOLTAGE RATING OR CURRENT RATING

Resistance Range: $\geq 1\Omega$

Rated Voltage: The resistor shall have a DC continuous working voltage or a RMS AC continuous working voltage at commercial-line frequency and wave form corresponding to the power rating, as determined formula as following:

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

SOLDERING PROFILE

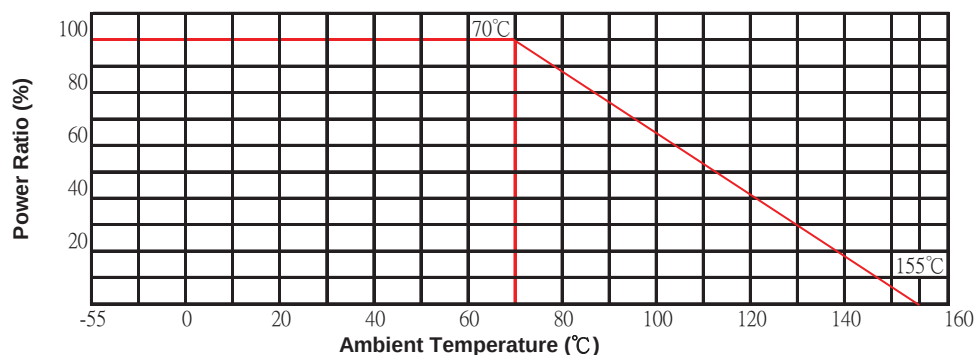


低阻值厚膜貼片電阻

LCR Series

Low Ohm Thick Film Chip Resistor

◆ POWER DERATING CURVE



In case resistor operating ambient, temperature in excess of the temperature range -55°C ~ 125°C rated load will be derated in accordance with the figure as shown on the right.

PACKAGE SPECIFICATION

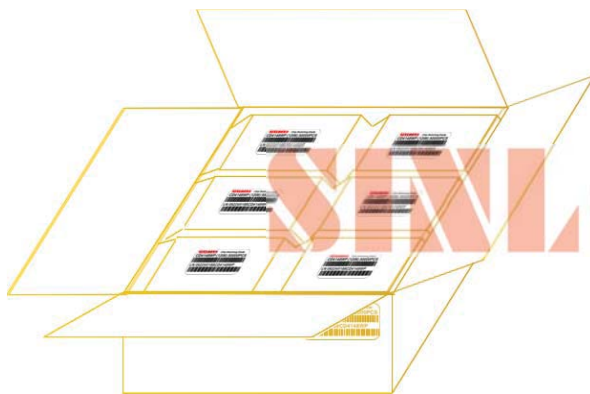
Power	Size	Type	Quantity(ea)			SINLOON®  品質承諾標誌 QUALITY COMMITMENT
			Paper Reel Tape	In Box	Carton	
1/16W	0402	Y-LCR02	10,000 Pcs 7" Reel	100K pcs	600K pcs	
1/10W	0603	X-LCR03	5,000 Pcs 7" Reel	50K pcs	300K pcs	
1/8W	0805	W-LCR05	5,000 Pcs 7" Reel	50K pcs	300K pcs	
1/4W	1206	V-LCR06	5,000 Pcs 7" Reel	50K pcs	300K pcs	
1/3W	1210	K-LCR10	5,000 Pcs 7" Reel	40K pcs	300K pcs	
1/2W	1812	U-LCR18	5,000 Pcs 7" Reel	40K pcs	300K pcs	
	2010	U-LCR20	5,000 Pcs 7" Reel	40K pcs	300K pcs	
1W	2512	S-LCR25	4,000 Pcs 7" Reel	40K pcs	240K pcs	
	1218	S-LCR28	4,000 Pcs 7" Reel	40K pcs	240K pcs	
2W	2512	Q-LCR25	4,000 Pcs 7" Reel	40K pcs	240K pcs	
2W	2030	Q-LCR30	2,000 Pcs 7" Reel	20K pcs	120K pcs	



Paper Reel Tape



Reel Tape Label



Carton Pack



In Box