

Metal Alloy Low-Resistance Resistor

TYPE : LR2728 3.5W Series

SPECIFICATIONS

規 格 書

Issued by : _____ Date : _____

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巨 馳 科 技 股 份 有 限 公 司

Giant Chip Technology Co., Ltd.

TEL : 886-2-8698-2189 FAX : 886-2-8698-2358

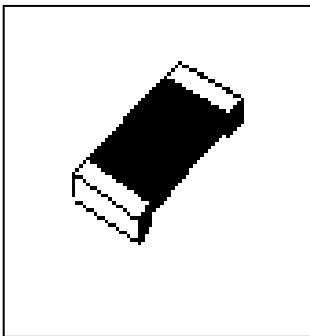
TEL : 886-7-301-0468 FAX : 886-7-301-0467

Metal Alloy Low-Resistance Resistor

Product Specification: LR2728 3.5W Type



FEATURES :



- ◆ Ideal for all types of current sensing, voltage division and Pulse applications including switching and linear power Supplies, Instruments, power amplifiers.
- ◆ Proprietary processing technique produces extremely low Resistance values.
- ◆ High-temperature performance (up to +275°C)
- ◆ Very low inductance 0.5nH to 5nH
- ◆ Excellent frequency response
- ◆ Low thermal EMF (<1uV/°C)
- ◆ Lead(Pb)-free construction is RoHS-compliant

1.

1. Standard Electrical Specifications :

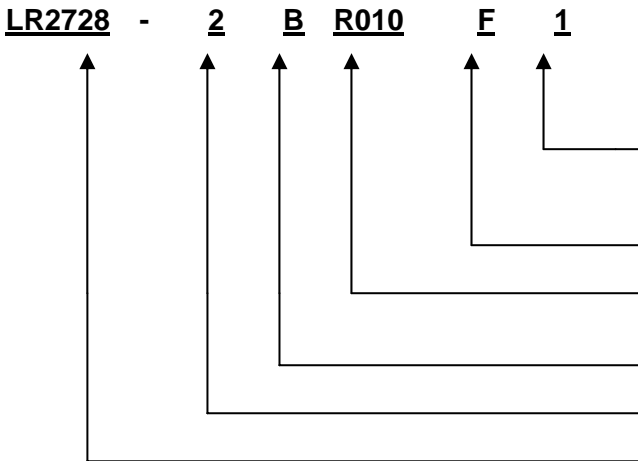
Model	Power Rating at 100 °C (Watts)	Resistance Range mΩ		
		0.5%(D)	1.0%(F)	5.0%(J)
LR2728-2B	3.5	4~100	4~100	4~100

3.5 Watts with total solder pad trace size of 300mm²

2. Technical Specifications :

Parameter	Unit	LR2728-2B (mΩ)
Temperature Coefficient	ppm /°C	4~7= -25
		8~100= -15
Operating Temperature Range	°C	-65 ~ + 275
Maximum Working Voltage	V	$(P \times R)^{1/2}$

Ordering Information :



Packing
 1=Tape & Reel ; B=Bulk Pack
 1=1,000 Pcs

Tolerance
 D=±0.5% ; F=±1.0% ; J=±5.0%

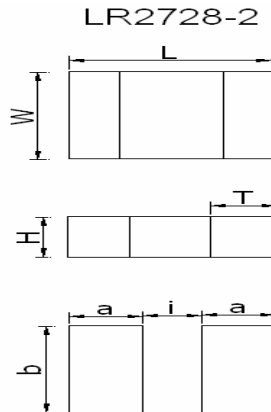
Resistance
 EX : R004=4mΩ ; R010=10mΩ

Power Rating (Watts)

Number of Terminals

Model (Size)

3. Dimensions :

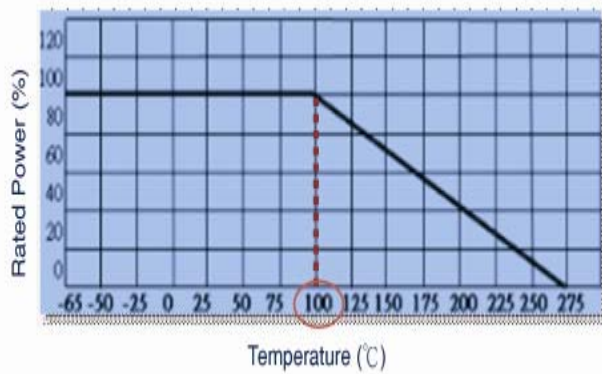


Model	DIMENSIONS - in inches (millimeters)				
	Resistance Range mΩ	L	W	H	T
LR2728-2B	4~100	0.264±0.010 (6.7±0.254)	0.283±0.010 (7.2±0.254)	0.039±0.010 (1.0±0.254)	0.045±0.010 (1.15±0.254)

Model	SOLDER PAD DIMENSIONS - in inches (millimeters)			
	Resistance Range mΩ	a	b	i
LR2728-2B	4 ~ 100	0.108(2.75)	0.308(7.8)	0.138(3.5)

Remark : 3. 5 Watts with total solder pad trace size of 300 mm²

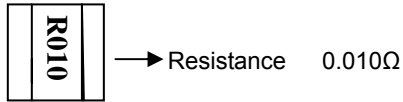
4. Power Derating Curve :



5. Performance :

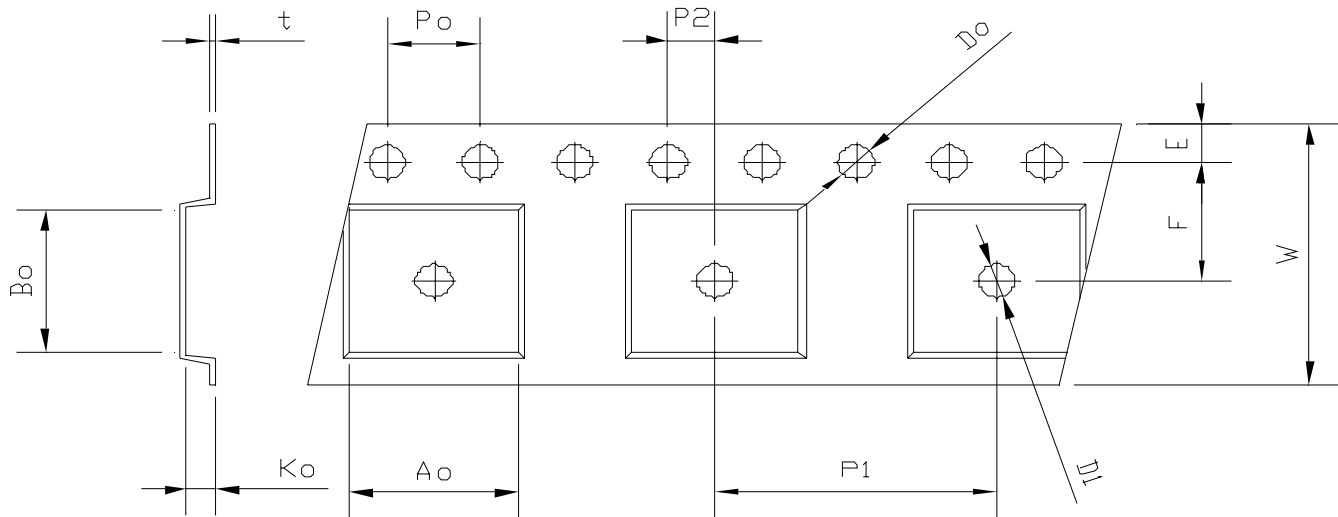
Test Item	Conditions of test	Test Method	Test Limits
Short Time Overload	3.5W 3x rated power for 5 seconds	JIS C5202 5.5	$\pm(0.5\%+0.0005\Omega)\Delta R$
Resistance to Solder Heat	Solder temp./immersion time:260±5°C ,10±1secs and 350±10°C ,3.5±0.5secs	JIS C5202 6.4	$\pm(0.5\%+0.0005\Omega)\Delta R$
Solderability test	Steam aging:4 hrs, cool down 30 minutes then test	JIS C5202 6.5	95% coverage
Vibration	Frequency varied 55Hz in one minute , 3 directions , 12 hours	JIS C5202 6.7	$\pm(0.5\%+0.0005\Omega)\Delta R$
Resistance to solvent	Immersion time:60±5 secs,20°C ~25 °C	JIS C5202 6.9	$\pm(0.5\%+0.0005\Omega)\Delta R$
Mechanical Shock	100 grams for 6 milliseconds, 5 pulses	JIS C5202 6.13	$\pm(0.5\%+0.0005\Omega)\Delta R$
Low Temperature Storage	-55°C for 1000 hours	JIS C5202 7.1	$\pm(0.5\%+0.0005\Omega)\Delta R$
High Temperature Exposure	1000 hours @ + 155°C	JIS C5202 7.2	$\pm(1.0\%+0.0005\Omega)\Delta R$
Thermal Shock	- 55 °C to + 125 °C , 1000 cycles , 15 minutes at each extreme	JIS C5202 7.4	$\pm(0.5\%+0.0005\Omega)\Delta R$
Moisture Resistance	Mil-STD-202 , Method 106 , 0% power , 7a and 7b not required	JIS C5202 7.6	$\pm(0.5\%+0.0005\Omega)\Delta R$
Bias Humidity	+ 85°C , 85% RH, 10% Bias, 1000 hours,90 minutes "ON",30 minutes "OFF"	JIS C5202 7.9	$\pm(0.5\%+0.0005\Omega)\Delta R$
Load Life	1000 hours @ rated power, + 100°C , 1.5 hours "ON" , 0.5 hours "OFF"	JIS C5202 7.10	$\pm(1.0\%+0.0005\Omega)\Delta R$

6. Marking :



7. Packaging :

Model	Reel			
	Tape Width	Diameter	Pieces/Reel	Code
LR2728-2B	12mm/Embossed Plastic	178mm/7"	1,000	1



Unit: mm

Item	W	P1	E	F	Do	D1	P0	Po*10	P2	Ao	Bo	Ko	t
Spec.	12.00	12.00	1.75	5.50	1.55	1.55	4.00	40.00	2.00	7.15	7.70	1.20	0.25
Tole.	±0.15	±0.10	±0.10	±0.10	±0.05	±0.05	±0.10	±0.20	±0.10	±0.10	±0.10	±0.10	±0.05