

## Metal Alloy Low-Resistance Resistor

TYPE : LR2728 4W Series

### SPECIFICATIONS

### 規 格 書

Issued by : \_\_\_\_\_ Date : \_\_\_\_\_

Checked by : \_\_\_\_\_ Date : \_\_\_\_\_

Approved by : 陳富強 Date : 2008/09/16

巨 馳 科 技 股 份 有 限 公 司

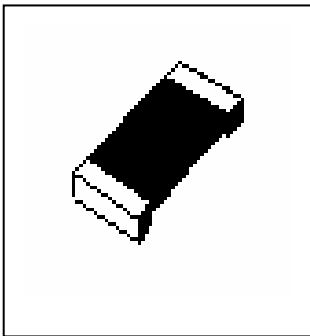
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## Metal Alloy Low-Resistance Resistor

### Product Specification : LR2728 4W 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. Standard Electrical Specifications :

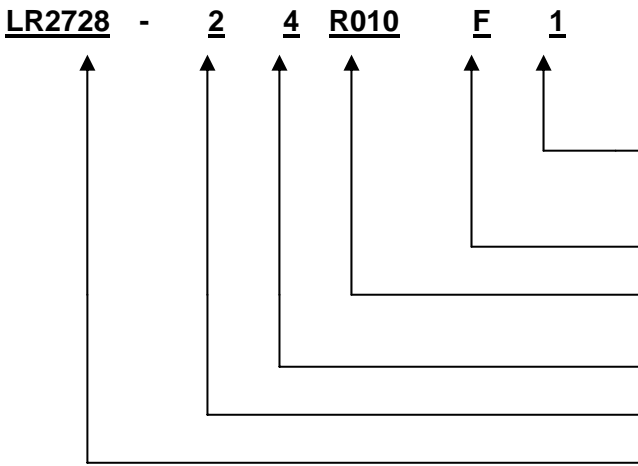
Model	Power Rating at 100 °C (Watts)	Resistance Range mΩ		
		0.5%(D)	1.0%(F)	5.0%(J)
LR2728-24	4.0	4~50	4~50	4~50

4 Watts with total solder pad trace size of 400mm<sup>2</sup>

### 2. Technical Specifications :

Parameter	Unit	LR2728-24 (mΩ)
Temperature Coefficient	ppm /°C	4~7= -25
		8~50= -15
Operating Temperature Range	°C	-65 ~ + 275
Maximum Working Voltage	V	(P × R) <sup>1/2</sup>

### Ordering Information :



**Packing**

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

**Tolerance**

D=±0.5% ; F=±1.0% ; J=±5.0%

**Resistance**

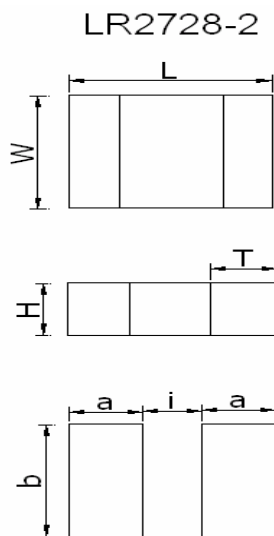
EX : R004=4mΩ ; R010=10mΩ

**Power Rating ( Watts )**

**Number of Terminals**

**Model ( Size )**

### 3. Dimensions :

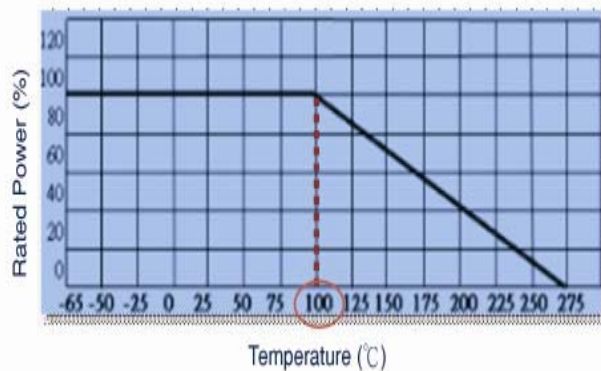


Model	DIMENSIONS - in inches (millimeters)				
	Resistance Range mΩ	L	W	H	T
LR2728-24	4~50	0.264±0.010 (6.7±0.254)	0.283±0.010 (7.2±0.254)	0.039±0.010 (1.0±0.254)	0.045±0.010 (1.15±0.254)

Model	SOLDER PAD DIMENSIONS - in inches (millimeters)			
	Resistance Range mΩ	a	b	i
LR2728-24	4 ~ 50	0.108 (2.75)	0.308 (7.8)	0.138 (3.5)

Remark : 4 Watts with total solder pad trace size of 400 mm<sup>2</sup>

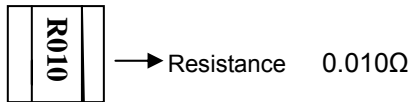
#### 4. Power Derating Curve :



#### 5. Performance :

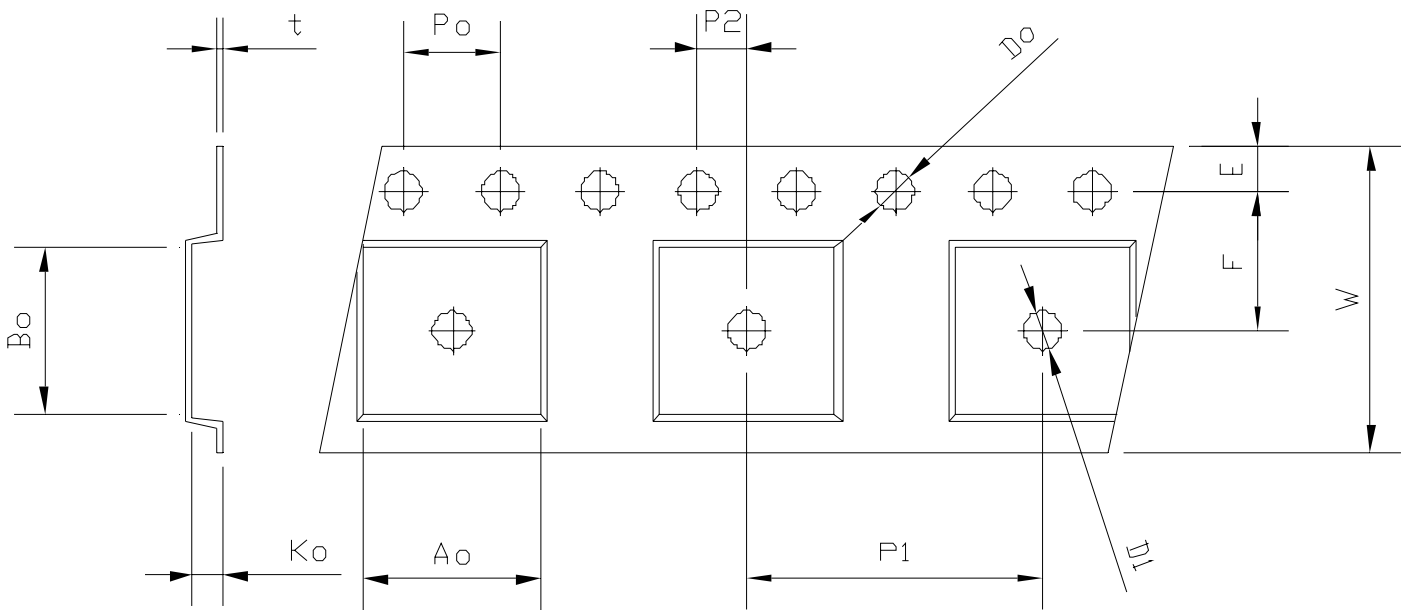
Test Item	Conditions of test	Test Method	Test Limits
Short Time Overload	4W 4x rated power for 5 seconds	JIS C5202 5.5	$\pm(0.5\%+0.0005\Omega)\Delta R$
Resistance to Solder Heat	Solder temp./immersion time:260±5°C ,10±1secs and 350±10°C ,3.5±0.5secs	JIS C5202 6.4	$\pm(0.5\%+0.0005\Omega)\Delta R$
Solderability 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
LR2728-24	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