

High Precision Resistors

Precision Metal-Film Resistors for Low-Cost Uses



► Preview

The RJ Series Precision Metal Film Resistors are manufactured using vacuum sputtering system to deposit multiple layers of mixed metals and passivative materials onto a carefully treated high grade ceramic substrate, the resistors are coated with layers of blue lacquer.

The metal-film technology is capable of supporting accuracy characteristics over a broad resistance range. Types include axial through-hole and metal film fusible resistor for special purpose.

The RJ Metal Film Resistors is designed as a low-cost alternative to traditional solutions for precision applications.

RJ Series equate Vishay, IRC, EBG, Panasonic Precision Devices with more competitive price and fast delivery. Contact us with your specific needs.

Features :

- High thermal conductivity and specific gravity rods.
- Power Rating : 0.16W~3W, precision tolerance tight to A5(± 0.05).
- Superior electrical TCR performances narrowed to C7(± 5) ppm/ $^{\circ}$ C.
- Epoxy coating, precision metal film, Lead (Pb)-free and RoHS compliant.

Applications :

- Telecom, Measuring and Calibration Equipment, Industrial Process Control Systems, Audio, Video

Quick Reference Data



Type	RJ72	RJ73	RJ74	RJ16	RJ17	RJ18	
MIL-R-10509F type	RN50	RN55	RN60	RN65	RN70	RN75	
Resistance range (Ω)	0.1 ~ 22M						
Resistance tolerance (%)	A5 (± 0.05), B (± 0.10), C (± 0.25), D (± 0.5), F (± 1), J (± 5.0)						
Temperature coefficient (ppm/ $^{\circ}$ C)	C7 (± 5), C6 (± 10), C5 (± 15), C3 (± 25), C2 (± 50), C1 (± 100)						
Climatic category (LCT/UCT/days)	55 / 125 / 56						
Rated dissipation (W) <i>P70</i>	0.16	0.25	0.50	1.0	2.0	3.0	
Operating voltage (V) <i>Umax</i>	200	250	300	350	450	500	
Short time over load voltage (V) <i>Umax</i>	400	500	600	700	900	1000	
Operating Temperature range	-55 $^{\circ}$ C to 125 $^{\circ}$ C						
Insulation voltage	>500V						
Insulation resistance	>1G Ω						
Dimensions (mm)	L (Max.)	3.8	6	10	12	16	26
	D (Max.)	2.0	2.5	3.5	4.5	5.5	8.6
	d ± 0.1	0.45	0.5	0.6	0.7	0.8	0.8
	H ± 2	24	24	26	26	26	26

Type	RJ73S	RJ74S	RJ16M	RJ16S	RJ17M	RJ17S	RJ18M	RJ18S	
MIL-R-10509F type	RN50	RN55	RN60	RN60	RN65	RN65	RN70	RN70	
Resistance range (Ω)	0.1 ~ 22M								
Resistance tolerance (%)	A5 (± 0.05), B (± 0.10), C (± 0.25), D (± 0.50), F (± 1.0), J (± 5.0)								
Temperature coefficient (ppm/ $^{\circ}$ C)	C7 (± 5), C6 (± 10), C5 (± 15), C3 (± 25), C2 (± 50), C1 (± 100)								
Climatic category (LCT/UCT/days)	55 / 125 / 56								
Rated dissipation (W) <i>P70</i>	0.25	0.50	1.00	1.00	2.00	2.00	3.00	3.00	
Operating voltage (V) <i>Umax</i>	250	300	350	350	400	400	450	450	
Short time over load voltage (V) <i>Umax</i>	500	600	700	700	800	800	900	900	
Operating Temperature range	-55 $^{\circ}$ C to 125 $^{\circ}$ C								
Insulation voltage	>500V								
Insulation resistance	>1G Ω								
Dimensions (mm)	L (Max.)	3.8	6.0	6.3	10	10	12	12	16
	D (Max.)	2.00	2.54	2.54	3.50	3.50	4.50	4.50	5.50
	d ± 0.1	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.8
	H ± 2	24	24	24	26	26	26	26	26

Notice : Resistance out of range, tolerance and temperature coefficient match are under request.

▶ How to Order

RJ16	22R	B	C6	P
❶	❷	❸	❹	❺

- ❶ Part Number: RJ72
 RJ73
 RJ74
 RJ73S
 RJ74S
 RJ16M

❷ Rated Power (W)

Code	Resistance Tolerance (%)
22R	22Ω
220R	220Ω
2K2	2.2KΩ
22K	22KΩ
2M2	2.2MΩ
22M	22MΩ

❸ Resistance Tolerance (%)

Code	Resistance Tolerance (%)
A5	±0.05
B	±0.10
C	±0.25
D	±0.5%
F	±1.00
J	±5.00

❹ Temperature Coefficient (ppm/°C)

Code	Temperature Coefficient (ppm/°C)
C7	±5
C6	±10
C5	±15
C3	±25
C2	±50
C1	±100

❺ Packaging

Code	Packaging
P	Bulk
TB	Taping Box

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