

Metal Film

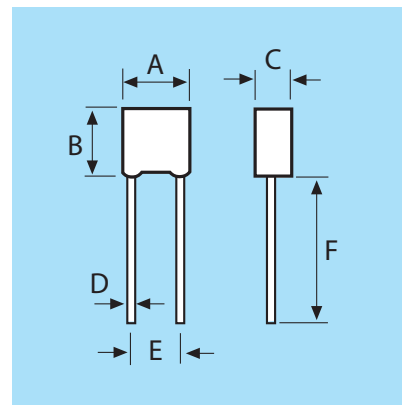
Series UPR / UPSC

Radial Resistors, extremely precise

- Precision tolerances: $\pm 0.1\%$ is standard, and tolerances as close as $\pm 0.01\%$ are available
- Low temperature coefficient: better than 3 ppm/°C, 5 ppm/°C, 10 ppm/°C or 15 ppm/°C
- Long-term stability: better than $\pm 0.05\%$ per 2,000 hours of operation.
- Wide resistance range: from 10 Ω to 255 K Ω

Specifications

- Resistance tolerance: $\pm 1.0\%$ (tolerances to $\pm 0.01\%$ upon special request)
- Std. operating temperature: -55°C to $+85^{\circ}\text{C}$
- TC Temperature range: -20°C to $+85^{\circ}\text{C}$
- Overload: 6.25 times rated power for 5 seconds at voltage not to exceed 1.5 times maximum rated working voltage, ΔR less than 0.05%
- Load life: 2,000 hours at $+125^{\circ}\text{C}$, ΔR less than 0.05%
- Moisture resistance: Mil-Std-202, Method 106, ΔR less than 0.02%
- Thermal shock: Mil-Std-202, Method 107, Cond. B, ΔR less than 0.05%
- Insulation resistance: 10,000 M Ω
- Low temperature operation: ΔR less than 0.02%
- Dielectric withstanding voltage: ΔR less than 0.02%
- Vibration: ΔR less than 0.01%
- Shock: ΔR less than 0.02%
- Standard storage conditions: 0 to 85°C at 80% RH max. for min. 12 months. For different conditions please contact your local EBG representative!



Dim.	Dimensions in millimeters Dimensions in inches	
	UPSC	UPR
A	7.50±.20 (.295±.008)	10.50±.30 (.413±.012)
B	8.50±.20 (.335±.008)	9.00±.30 (.354±.012)
C	2.50±.20 (.098±.008)	4.00±.30 (.157±.012)
D	0.63±.05 (.025±.002)	0.63±.05 (.025±.002)
E	3.81±.38 (0.150±.015)	7.62±.38 (0.300±.015)
F	25±1 (0.98±.04)	25±1 (0.98±.04)

Types UPSC and UPR Low TC Precision Radial-Lead Resistors - Standard Characteristics							
Model no.	Temperature coefficient ppm/°C	Wattage +70°C	Max. working voltage	Dielect strength U DC	Resistance		Dimensions
					Min.	Max.	
UPSC	± 3 to ± 15	0.60	300	500	100R	1M	see Matrix
UPR	± 3 to ± 15	0.60	250	400	10R	255K	see Matrix

Tests	Conditions	MIL-R-55182/9	Typical drifts
Power conditioning (108)	100 hours/rated power at $+125^{\circ}\text{C}$ 90'/30' cycle	-	$\pm 0.02\%$ combined test
Thermal shock (107)	5 cycles -65°C / $+150^{\circ}\text{C}$	$\pm 0.05\%$ combined test	
Short time overload	6.25 times rated power / 5sec		
Low temperature storage and operation	1h stor. 45 min rated pow. at -65°C	$\pm 0.05\%$	-
	24h stor. 45 min rated pow. at -65°C	-	$\pm 0.01\%$
Terminal strength (211)	2lb pull test	$\pm 0.02\%$	$\pm 0.01\%$
Dielectric withstanding Voltage (301)	300 V Atmospheric 200 V / 100,000 ft.	$\pm 0.02\%$	$\pm 0.01\%$
Resist to soldering (210)	350°C / 3 sec.	$\pm 0.02\%$	$\pm 0.01\%$
Moisture resistance (106)	10 days	$\pm 0.05\%$	$\pm 0.01\%$
Shock	10 shocks 100g 6ms sawtooth	$\pm 0.01\%$	$\pm 0.01\%$
Vibration (204)	10 to 2000 Hz. 20 g 8 hours	$\pm 0.02\%$	$\pm 0.01\%$
Load life (108)	2000 hours at rated power at $+25^{\circ}\text{C}$, $+85^{\circ}\text{C}$ or $+125^{\circ}\text{C}$	$\pm 0.05\%$	$\pm 0.05\%$
	10,000 hours at rated power at $+125^{\circ}\text{C}$	$\pm 0.5\%$	$\pm 0.2\%$
Storage Life	10,000 h. no load at room conditions	-	$\pm 0.005\%$

The above spec. sheet features our standard products. For further options, please contact our local EBG representative or contact us directly. For updated information, please visit our website!