

# USR 2-0808

Precision Foil Resistors



- Resistances from 10hm to 150kOhms
- Power Rating to 0.6 Watts
- Resistance Tolerances to  $\pm 0.005\%$
- TCR to  $\pm 1\text{ppm}/^\circ\text{C}$
- Load Stability to 0.01%

## SPECIFICATIONS

Type	USR 2-0808
Resistance Range	1.0 to 150 kOhms
Power rating (70°C)	0.6W (<100 kOhms) 0.4W (>100 kOhms)
Tolerances from 1.0 Ohms from 5.0 Ohms from 12.0 Ohms from 25.0 Ohms from 100.0 Ohms	0.1% / 0.25% / 0.5% / 1% 0.05% / 0.1% / 0.25% / 0.5% / 1% 0.02% / 0.05% / 0.1% / 0.25% / 0.5% / 1% 0.01% / 0.02% / 0.05% / 0.1% / 0.25% / 0.5% / 1% 0.005% / 0.01% / 0.02% / 0.05% / 0.1% / 0.25% / 0.5% / 1%
Stability	0.01%
Shelf Life Stability	25ppm / $\Delta R$ after 1 year 50ppm / $\Delta R$ after 3 year
Temperature Coefficient	max. $\pm 5\text{ppm}/^\circ\text{C}$ (-55 to 155°C) typ. $\pm 3\text{ppm}/^\circ\text{C}$ (-55 to 125°C) upon request $\pm 1\text{ppm}/^\circ\text{C}$ (0 to 60°C) and $\pm 1\text{ppm}/^\circ\text{C}$ (-55 to 125°C)
Insulation Resistance	> 10GOhm
Thermal EMF	< 0.1 $\mu\text{V}/^\circ\text{C}$
Operating Temperature Range	-55 to 155°C
Resistor Material	NiCr-Foil
Substrate	Al <sub>2</sub> O <sub>3</sub>
Housing	PBTP / Epoxy
Connector Material	Cu tinned
Terminals	2

## Ordering Information

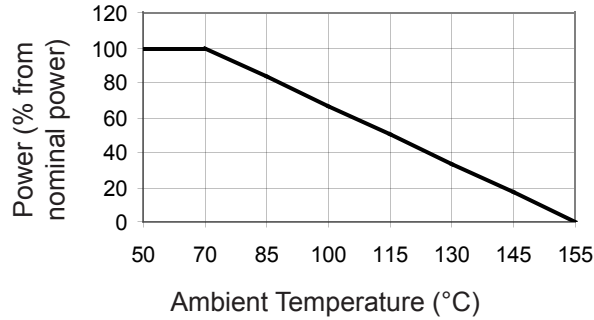
Part Description: Part Type - Resistance - Grid Type - Tolerance - TCR

Example: USR 2-0808 150 kOhms D 0.1% 5ppm

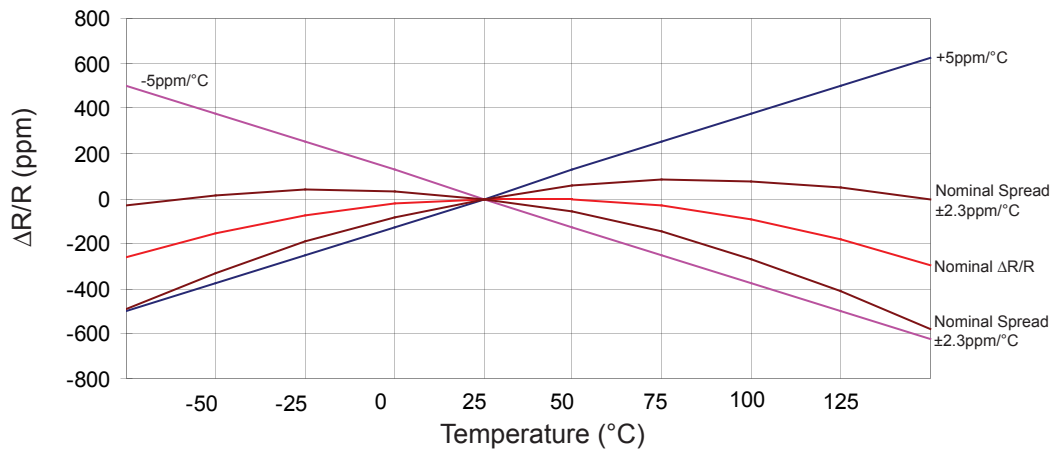
Grid D = 3.81mm (0.15inches) Lead Spacing  
Grid J = 5.08mm (0.2inches) Lead Spacing  
If none specified, Grid D is default

**SPECIFICATIONS** (continued)

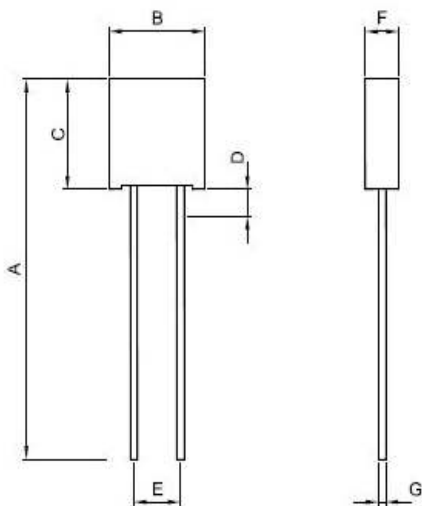
**Derating**



**Temperature Coefficient**



**DIMENSIONS**



Type	Dimension	mm	tol. (±mm)	inches	tol. (±inches)
USR 2-0808 Grid D	A	28.30	2.0	1.11	0.079
	B	7.62	0.1	0.30	0.004
	C	8.30	0.2	0.33	0.008
	D	2.00	0.1	0.08	0.004
	E	3.81	0.1	0.15	0.004
	F	2.67	0.1	0.11	0.004
	G	Ø0.64	0.1	Ø0.025	0.004
USR 2-0808 Grid J	A	28.00	2.0	1.10	0.079
	B	7.49	0.1	0.29	0.004
	C	8.00	0.2	0.31	0.008
	D	2.00	0.1	0.08	0.004
	E	5.08	0.1	0.20	0.004
	F	2.49	0.1	0.10	0.004
	G	Ø0.64	0.1	Ø0.025	0.004