

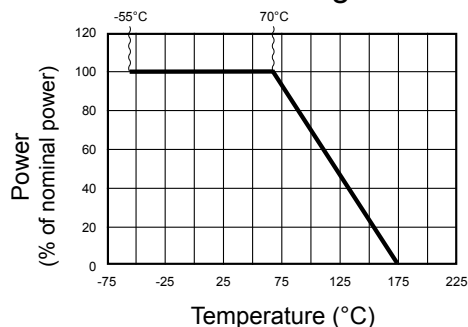
- Resistances from 10hm to 150kOhms
- Power Rating to 0.6 Watts
- Resistance Tolerances to  $\pm 0.005\%$
- TCR to  $\pm 1\text{ppm}/^\circ\text{C}$
- Load Stability to  $0.005\%$  @  $70^\circ\text{C}$ , 2000hr

## SPECIFICATIONS

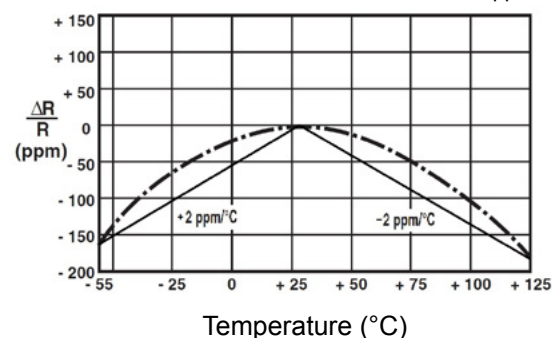
Type	UHPL-2
Resistance Range	1.0 to 150 kOhms ( Up to 1 Meg available, contact factory )
Power rating (70°C)	0.6W (<100 KOhms) 0.4W (>100 KOhms)
MAX Working Voltage	300V
Tolerances:	from 0.5 Ohms 1% from 1 Ohms 0.5% / 1% from 2 Ohms 0.1% / 0.25% / 0.5% / 1% from 5.0 Ohms 0.05% / 0.1% / 0.25% / 0.5% / 1% from 12.0 Ohms 0.02% / 0.05% / 0.1% / 0.25% / 0.5% / 1% from 25.0 Ohms 0.01% / 0.02% / 0.05% / 0.1% / 0.25% / 0.5% / 1% from 100.0 Ohms 0.005% / 0.01% / 0.02% / 0.05% / 0.1% / 0.25% / 0.5% / 1%
Stability	0.005% ( 2000 hr @ 0.1W, 70°C )
Temperature Coefficient	Typical: $\pm 1\text{ppm}/^\circ\text{C}$ ( -55 to +125°C, +25°C REF ) 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 )
Operating Temperature Range	-55 to 175°C
Inductance	< 0.08 $\mu\text{H}$
Capacitance	1pF MAX, 0.5pF Typical
Rise Time	1ns @ 1KHz
Thermal EMF	< 0.05 $\mu\text{V}/^\circ\text{C}$
Voltage Coefficient	< 0.1 PPM/V
Terminations	SnPb* Solder Finish ( Pb free available )

\* Pb containing terminations are not RoHS compliant

Power Derating Curve



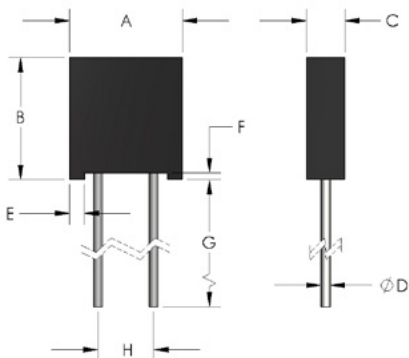
Temperature Coefficient C Alloy  $\pm 2\text{ppm}/^\circ\text{C}$



### SPECIFICATIONS (continued)

Environmental Performance Comparison			
	MIL-PRF-55182 CHAR J	UHPL Series Max $\Delta R$	UHPL Series Typical $\Delta R$
Thermal Shock: 5 x (-65°C to + 150°C)	± 0.2 %	±0.01% (100ppm)	± 0.002 % (20ppm)
Short Time overload: 6.25 x rated power	± 0.2 %	±0.01% (100ppm)	± 0.003 % (30ppm)
Low Temperature storage: 24 h @ -65°C	± 0.15 %	± 0.01 % (100ppm)	± 0.002 % (20ppm)
Dielectric Withstanding Voltage (DWV)	± 0.15 %	± 0.01 % (100ppm)	± 0.002 % (20ppm)
Resistance to Solder Heat	± 0.1 %	± 0.01 % (100ppm)	± 0.005 % (50ppm)
Moisture Resistance	± 0.4 %	± 0.05 % (500ppm)	± 0.01 % (100ppm)
Shock	± 0.2 %	± 0.01 % (100ppm)	± 0.002 % (20ppm)
Vibration	± 0.2 %	± 0.01 % (100ppm)	± 0.002 % (20ppm)
Life Test: 0.3W @ +125°C, 2000 h	± 0.5 %	± 0.015 % (150ppm)	± 0.01 % (100ppm)
Life Test: 0.6 W (2 x rated power) @ +70°C, 2000 h	± 0.5 %	± 0.015 % (150ppm)	± 0.01 % (100ppm)
High Temperature exposure: 2000 h @ +175°C	± 2.0%	± 0.1 % (1000ppm)	± 0.05 % (500ppm)
Voltage Coefficient	5ppm /V	< 0.1 ppm/V	< 0.1 ppm/V

### DIMENSIONS



Type	Dimension	mm	TOL (±mm)	inches	TOL (±inches)
UHPL-2	A	7.62	0.25	0.300	0.010
	B	8.28	0.25	0.326	0.010
	C	2.67	0.25	0.105	0.010
	D	0.60	0.03	0.24	0.001
	E	1.02	0.13	0.040	0.005
	F	0.25	MIN	0.010	MIN
	G	25.4	3.2	1.00	0.13
	H	3.81	0.13	0.150	0.005

### Ordering Information

Part Description: Part Type - Resistance - Tolerance - TCR  
 UHPL-2 1.0125K 0.05% 2PPM