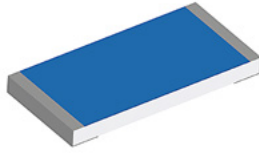


UHPC Series

Foil Precision Chip Resistor



- Resistances from 5 Ohm to 125kOhms
- Power Ratings from 0.100 to 0.75 Watts
- Resistance Tolerances to $\pm 0.01\%$
- TCR's to $\pm 0.05 \text{ ppm}/^\circ\text{C}$ (0°C to $+60^\circ\text{C}$)
- Sizes: 0805 / 1206 / 2010 / 2512

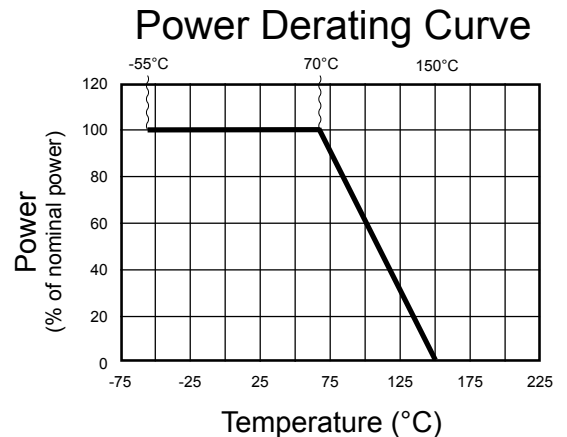
SPECIFICATIONS

Type	0805	1206	2010	2512
Power Rating (mW) at 70°C	200	300	500	750
Resistance Range (Ω)	5 to 8K	5 to 25K	5 to 70K	5 to 125K
MAX Operating Voltage ¹	40V	87V	187V	220V
Operating Temperature Range	-55 to 150°C			
Inductance	< 0.08 μ H			
Capacitance	1pF MAX, 0.5pF Typical			
Rise Time	1ns @ 1KHz			
Voltage Coefficient	< 0.1 PPM/V			
Terminations	Pb free or SnPb*			

¹ Operating Voltage = $\sqrt{P \cdot R}$ or MAX Listed, whichever is lower.
 * Pb containing terminations are not RoHS compliant

Tolerance and TCR vs. Resistance Value ⁽¹⁾ (-55°C to +125°C, +25°C Ref.)		
Resistance (Ω)	Tolerance (%)	Typical TCR and MAX Spread (ppm/°C)
250 to 125K	± 0.01	$\pm 0.2 \pm 1.8$
100 to <250	± 0.02	$\pm 0.2 \pm 1.8$
50 to <100	± 0.05	$\pm 0.2 \pm 2.8$
25 to <50	± 0.1	$\pm 0.2 \pm 3.8$
10 to <25	± 0.25	$\pm 0.2 \pm 3.8$
5 to <10	± 0.5	$\pm 0.2 \pm 7.8$

⁽¹⁾ For tighter performances and non-standard values lower than 5 Ω and above 125K, please contact a Riedon Representative, information in footer below.



Ordering Information

Part Description: Part Type - Resistance - Tolerance - Packaging (Tape & Reel or Waffle Pack)

Example: UHPC 0805 500 Ohms 0.05%

UHPC Series

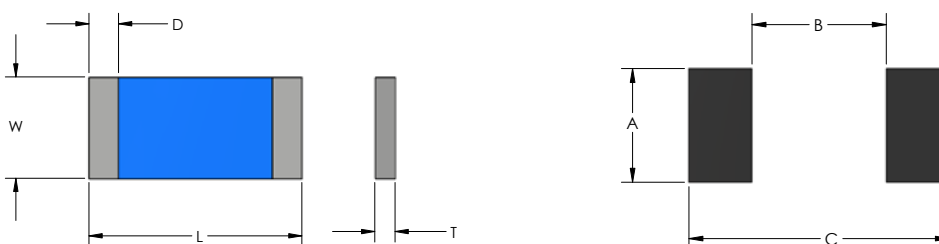
Foil Precision Chip Resistor



Environmental Characteristics

Performances			
Test or Conditions	MIL-PRF-55342 Characteristic E ΔR Limits	Typical ΔR Limits	Maximum ΔR Limits ⁽¹⁾
Thermal Shock: 100 x (-65°C to + 150°C)	± 0.1 %	± 0.005 %	± 0.01 % + 0.01Ω
Low Temperature Operation: -65°C, 45 min at P _{nom}	± 0.1 %	± 0.005 %	± 0.01 % + 0.01Ω
Short Time Overload: 6.25 x Rated Power, 5 s	± 0.1 %	± 0.005 %	± 0.01 % + 0.01Ω
High Temperature Exposure: + 150°C, 100 h	± 0.1 %	± 0.01 %	± 0.02 % + 0.01Ω
Resistance to Soldering Heat	±0.2%	± 0.005 %	± 0.01 % + 0.01Ω
Moisture Resistance	±0.2%	± 0.005 %	± 0.02 % + 0.01Ω
Load Life Stability: +70°C for 2000 h at Rated Power	±0.5%	± 0.005 %	± 0.01 % + 0.01Ω

Recommended Footprint



Type	Dimensions						
	L ±0.005[±0.13]	W ±0.005[±0.13]	T (MAX)	D ±0.005[±0.13]	A	B	C
UHPC 0805	0.080 [2.0]	0.050 [1.3]	0.025 [0.64]	0.015 [0.4]	0.050 [1.3]	0.028 [0.7]	0.122 [3.1]
UHPC 1206	0.125 [3.2]	0.062 [1.6]		0.020 [0.5]	0.071 [1.8]	0.059 [1.5]	0.175 [4.5]
UHPC 2010	0.200 [5.0]	0.100 [2.5]		0.025 [0.6]	0.103 [2.6]	0.115 [2.9]	0.247 [6.3]
UHPC 2512	0.250 [6.3]	0.125 [3.2]		0.032 [0.8]	0.127 [3.2]	0.150 [3.8]	0.291 [7.4]