Type TG Low TC Precision High Voltage Resistors

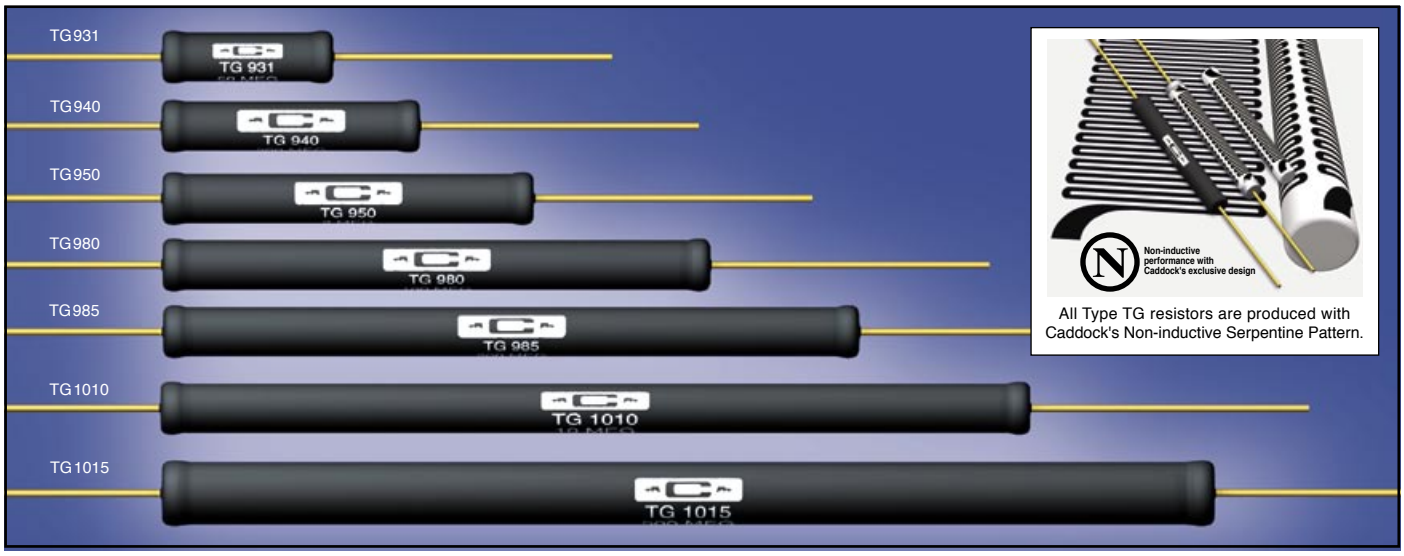
TC of 25 ppm/°C from -55°C to +125°C, Resistance Range from 1 Megohm to 1,000 Megohms

To meet the precision temperature stability requirements of high accuracy, high voltage systems, Caddock introduces the Type TG Low TC Precision High Voltage Resistors. These resistors utilize our proven Tetrinox® resistance system to achieve the unique combination of low temperature coefficient with high stability performance at high operating voltages.

The Type TG Low TC Precision High Voltage Resistors are designed to meet the demanding stability requirements of TWT power supplies, electron microscopes, X-ray systems, high resolution CRT displays, and geophysical instruments.

The performance features of the Type TG Low TC Precision High Voltage Resistors are:

- Temperature Coefficient: 25 ppm/°C from -55°C to +125°C.
- Load Life Stability of 0.25% per 1,000 hours at +125°C.
- Resistance Tolerance from ±1.0% to ±0.1%.
- Resistance Range from 1 Megohm to 1,000 Megohms.
- Maximum Continuous Operating Temperature of +225°C.
- The low temperature coefficient minimizes the self-drift due to power dissipation warm-up.



All Type TG resistors are produced with Caddock's Non-inductive Serpentine Pattern.

Model No.	Wattage	Max. Continuous Oper. Volt.	Dielect. Strength	TC ppm/°C	Resistance			Dimensions in inches and (millimeters)		
					Min.	-15 Min.	Max.	A	B	C
TG931	1.0	4,000	750	25	1 Meg	40 Meg	50 Meg	1.000 ±.060 (25.40 ±1.52)	.315 ±.030 (8.00 ±.76)	.040 ±.002 (1.02 ±.05)
TG940	1.5	6,000	750	25	1.5 Meg	64 Meg	100 Meg	1.500 ±.060 (38.10 ±1.52)	.315 ±.030 (8.00 ±.76)	.040 ±.002 (1.02 ±.05)
TG950	2.0	10,000	1,000	25	2 Meg	128 Meg	200 Meg	2.125 ±.060 (53.98 ±1.52)	.315 ±.030 (8.00 ±.76)	.040 ±.002 (1.02 ±.05)
TG980	3.0	15,000	1,000	25	3 Meg	192 Meg	300 Meg	3.125 ±.060 (79.38 ±1.52)	.315 ±.030 (8.00 ±.76)	.040 ±.002 (1.02 ±.05)
TG985	4.0	20,000	1,000	25	4 Meg	320 Meg	400 Meg	4.000 ±.120 (101.60 ±3.05)	.315 ±.030 (8.00 ±.76)	.040 ±.002 (1.02 ±.05)
TG1010	5.0	25,000	1,000	25	5 Meg	400 Meg	500 Meg	5.000 ±.120 (127.00 ±3.05)	.315 ±.030 (8.00 ±.76)	.040 ±.002 (1.02 ±.05)
TG1015	6.0	30,000	1,000	25	6 Meg	384 Meg	1000 Meg	6.000 ±.120 (152.40 ±3.05)	.350 ±.040 (8.89 ±1.02)	.040 ±.002 (1.02 ±.05)

Extended Maximum Continuous Operating Voltage Rating

Maximum continuous operating voltages up to 60% higher than the values listed in the table can be achieved through special factory conditioning. To specify maximum continuous operating voltages above the values listed in the table, add a "-15" to the model number (Example: TG950-15). Note that the standard overload and overvoltage ratings do not apply to the "-15" resistors. Resistance range for "-15" resistors shown in the table are from "-15 Min." to "Max."

Combine Type TG and Type TK Resistors for Low Ratio TC Tracking

The Type TG Low TC Precision High Voltage Resistors can be used in combination with the low Absolute Temperature Coefficient of the Type TK Low TC Precision Radial-Lead Film Resistors (Model TK133 with TC of 5 ppm/°C) to achieve 30 ppm/°C Ratio TC without special matching.

With special matching, a **Ratio TC of 10 ppm/°C** can be achieved.

The low temperature coefficient for both the Type TG and Type TK resistors will also minimize ratio drift due to power dissipation warm-up.

Certain products shown in this catalog are covered by one or more patents, there are also patents pending.

Specifications:

Resistance Tolerance: ±1% (tolerances to 0.1% on special order).

Temperature Coefficient: 25 ppm/°C referenced to +25°C, ΔR taken at -55°C and +125°C.

Insulation Resistance: 10,000 Megohms, min.

Overload/Overvoltage: 5 times rated power with applied voltage not to exceed 1.5 times maximum continuous operating voltage for 5 seconds. ΔR 0.20% max.

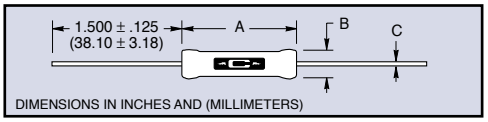
Thermal Shock: Mil-Std-202, Method 107, Cond. B, ΔR 0.20% max.

Moisture Resistance: Mil-Std-202, Method 106, ΔR 0.20% max.

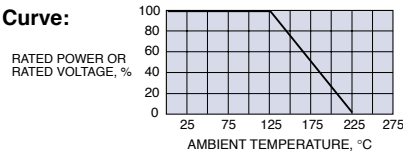
Load Life: 1,000 hours at +125°C at rated voltage, not to exceed rated power, ΔR 0.25%.

Solderable Leads

Encapsulation: High Temperature Silicone Conformal.



Derating Curve:



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