



High Voltage

High Energy

Non-Inductive

High-Energy Rod and Tube resistors are especially useful in applications requiring maximum energy density in a tube resistor. The standard termination is a metalized ferrule. Alternatives such as radial tabs and high voltage ferrules allow for mounting options or enhanced performance. Available configuration options optimize performance in air, oil or other dielectric.

Replacement Carbon-Ceramic Tube resistors offer drop-in substitution and expanded resistance range, while retaining the advantages of high surge energy, high voltage withstand, and non-inductance. The thinwall tube provides more effective convection cooling.

High Energy Rods and Tubes

Part Number	O.D.(mm)	I.D. (mm)	L (cm)	Energy ¹ (J)	Power ² (W)	Impulse (kV)	Resistance Range (Ω)	Comment
R1005AXXXX	10	—	5.0	1,000	10	1.6 * log R	10—1.0K	Solid Rod
R1010AXXXX	10	—	10	2,000	20	3.0 * log R	22 — 2.2K	Solid Rod
R1908AXXXX	19	—	7.5	6,000	24	4.4 * log R	10 — 2.2K	Solid Rod
T2515AXXXX	25	15	15	11,000	55	6.5 * log R	15 — 2.2K	High Energy Tube
T2525AXXXX	25	15	25	22,000	90	8.0 * log R	22 — 4.7K	High Energy Tube
T2546AXXXX	25	15	46	45,000	150	12.0 * log R	47 — 10.0K	High Energy Tube
T5030AXXXX	50	35	30	94,000	200	8.5 * log R	15 — 1.5K	High Energy Tube
T5046AXXXX	50	35	45	140,000	300	12.0 * log R	22 — 2.2K	High Energy Tube

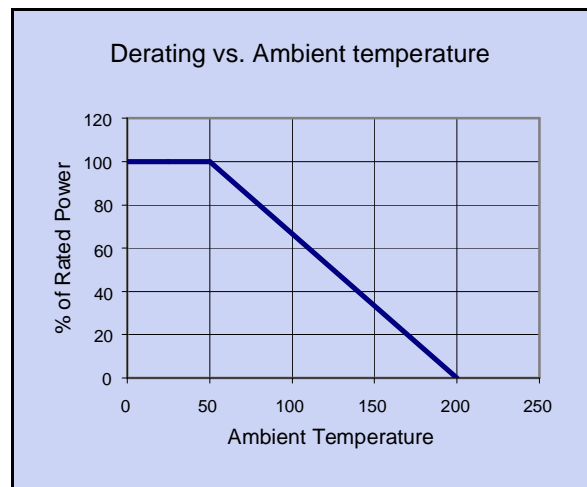
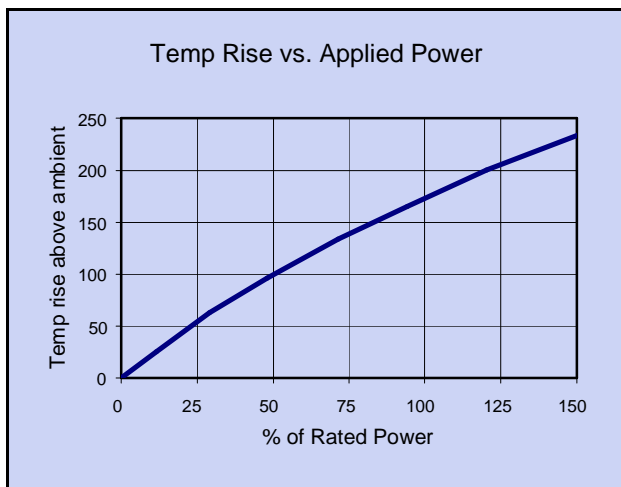
Notes: 1. Single Impulse 2. Rated @ 25°C. Derate linearly to 0W @ 200°C.

Replacement Carbon-Ceramic Tubes

Part Number	Replace Type	O.D. (mm)	I.D. (mm)	L (cm)	Energy ¹ (Joules)	Power ² (Watts)	Peak Voltage ³	Resistance Range (Ω)
T1305CXXXX-DS	884AS	12.7	5.6	5.1	1,400	12	5,000	10—25K
T1906CXXXX-DS	885AS	19.1	12.7	6.4	2,800	15	8,000	6.8—22k
T1913CXXXX-DS	886AS	19.1	12.7	13	7,500	30	20,000	15- 47K
T2515CXXXX-DS	887AS	25.4	19	15	13,000	50	30,000	8.2—33K
T2520CXXXX-DS	888AS	25.4	19	20	16,500	75	45,000	12—42K
T2530CXXXX-DS	889AS	25.4	19	30	27,000	100	75,000	18—68K
T2546CXXXX-DS	890AS	25.4	19	46	43,000	150	120,000	22—100K
T3815CXXXX-DS	1026AS	38	25	15	30,000	70	30,000	3.3— 10K
T3820CXXXX-DS	1028AS	38	25	20	46,000	100	45,000	3.9— 15K
T3830CXXXX-DS	1032AS	38	25	30	75,000	150	75,000	4.7— 22K
T3846CXXXX-DS	1038AS	38	25	46	119,000	225	120,000	6.8— 33K

Notes: 1. One-second rate 2. Horizontal mount free air 3. Single impulse

Parameter	Maximum ΔR	Test Method
Life Test	+5%	MIL-STD-202F, method 108A. except 50°C.
Single Pulse Energy	+/-1.5%	Single pulse capacitor discharge of 100% Rated Energy @1000 vDC
Short-time Overload	+/-2.5%	5x rated power. 2 seconds ON, 5 seconds OFF, 5 cycles.
Long-term High Temperature	+/-2.0%	1000 hours @ 150 °C
Temperature Coefficient of R	+0,- 1500ppm	Two point measurement, 20°C and 100 °C



Ordering Information

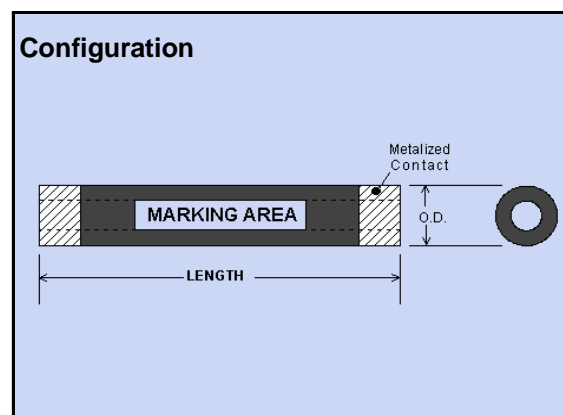
I DD LL C XXX X-DS*

- Series
- O.D. (mm)
- Length (cm)
- Style

Tolerance
 J = +/- 5%
 K = +/- 10%
 L = +/- 20%

Resistance, 2 digits + mult.
 Example, 331 = 330 ohms
 <10 ohms, R= decimal

* -DS = std. configuration for use in air
 Conformal dielectric coating +
 Ag/epoxy contacts



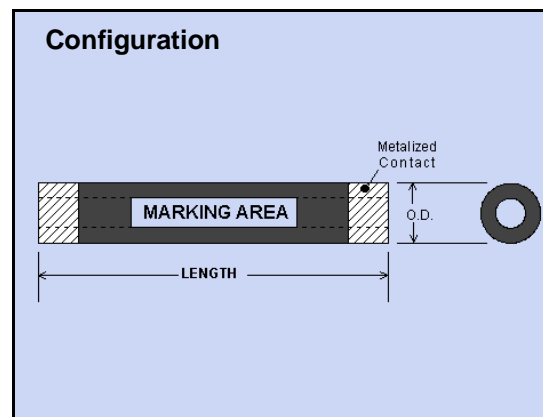
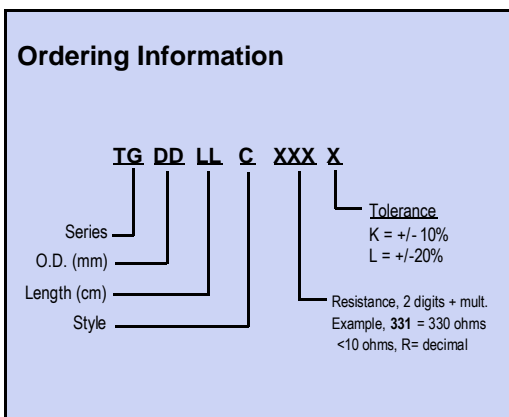


- **Increased P_{avg}**
- **High Energy**
- **Non-Inductive**

TG Series ceramic/glass tube resistors offer increased average power dissipation while retaining the *Cercomp* advantages of high surge energy and non-inductance. These ceramic composite resistors are especially useful in RF applications such as transmitters and modulators, where the configuration provides effective convection cooling. The standard termination is a metalized ferrule, with optional radial tabs. The ceramic/metal/glass composite material is non-porous and unaffected by moisture or by use in oil or other liquid dielectrics.

Part Number	O.D. (mm)	Replace Type	I.D. (mm)	L (cm)	Energy ¹ (Joules)	Power ² (Watts)	Peak Voltage	Resistance Range (Ω)
TG1306CXXXX	12.7	884SP	5.6	5.1	1,000	25	1,000	1.5– 330
TG1906CXXXX	19.1	885SP	12.7	6.4	2,000	50	1,000	1.5– 330
TG1913CXXXX	19.1	886SP	12.7	12.7	4,000	100	4,000	2.2— 680
TG2515CXXXX	25	887SP	19	15	7,000	150	5,000	1.0—330
TG2530CXXXX	25	889SP	19	30	14,000	300	10,000	2.0—680
TG2546CXXXX	25	890SP	19	46	22,000	400	15,000	3.3—1.0K
TG5030AXXXX	50	891SP	35	30	65,000	500	10,000	0.5—150
TG5060AXXXX	50	892SP	35	60	130,000	1000	20,000	1.0—300

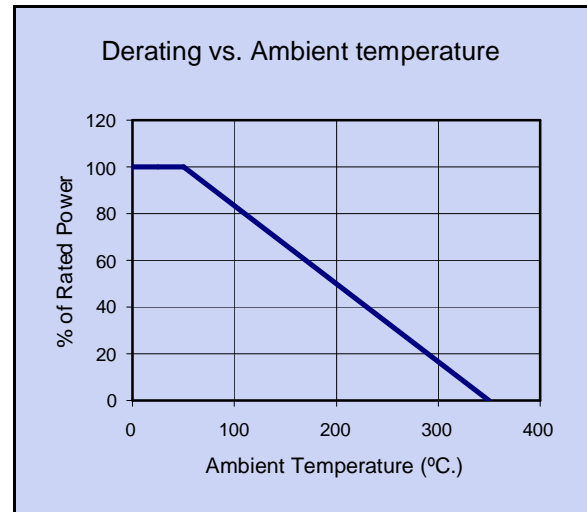
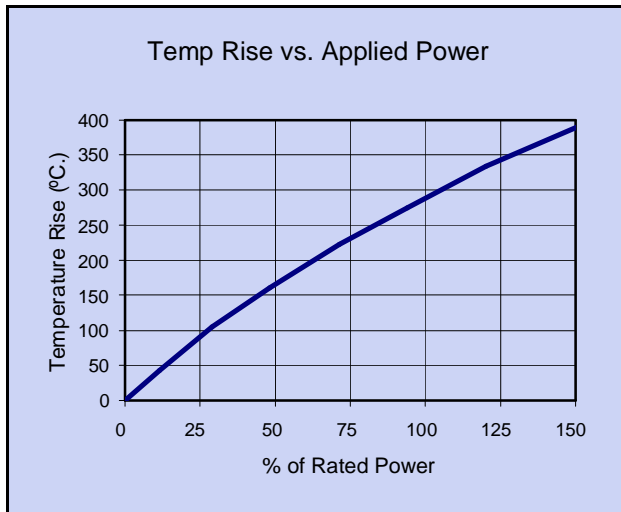
Notes: 1. Single impulse, 1 sec. 2. Rated @ 25°C. Derate linearly to 0W @ 350°C.



TG Series Tube Resistors

Technical Data

Parameter	Maximum ΔR	Test Method
Life Test	+5%	MIL-STD-202F, method 108A. except 25°C. 1000 hrs. @ rated power; 1.5 hrs. ON, .5 hrs OFF
Single Pulse Energy	+/-1.5%	Single 1 sec duration @ constant power to 100% Rated Energy
Short-time Overload	+/-2.5%	5x rated power. 2 seconds ON, 5 seconds OFF, 5 cycles.
Long-term High Temperature	+/-2.0%	1000 hours @ 150 °C
Thermal Shock Cycle	+/-2.0%	MIL-STD-202F, method 107D. -55 °C to +125 °C, 5 cycles
Moisture resistance	+/-1.0%	90%-95% rh @ 40 °C, 1000 hrs.
Temperature Coefficient of R	+/- 1000ppm	Two point measurement, 20°C and 150°C



The Company...

HVR Advanced Power Components, Inc. is an affiliate of HVR International, Ltd. the major world-wide supplier of ceramic composition resistors. We provide a wide range of components in sizes from 1 watt to 200kW.

How it works...

Ceramic composition resistors comprise a solid body of high temperature resistive material with bonded metal electrodes. This simple, "bulk" construction concentrates nearly all of the component mass into the resistive element, resulting in a rugged device capable of withstanding large energy surges and peaks, up to several hundred times the average power rating. By dissipating energy uniformly throughout the component, these resistors achieve high reliability and small size. Ceramic composition resistors are inherently non-inductive, making them ideal for fast pulse or high frequency applications.

