

High Voltage High Frequency Resistors for various High Voltage Applications

Willow offers HTE - series to meet general set of requirements, high voltages at reasonable prices. HTE is in epoxy coating which is very good humidity protection, and a wide range of tolerances, TCR available.

HTE Precision High Voltage Resistor, The main usage ;

Epoxy coating for excellent humidity protection

Std. Resistance tolerance : 0.5% 1% 2% 5% 10%

Main application for HV energy Capacitor's charger & discharger, various HV Loads, HV Snubber, HV damping, on HV diode, R-C tank, in Ion gun's termination, etc...

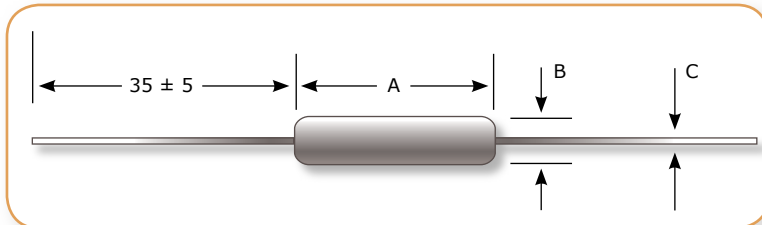
- * Resistance rating : 1kΩ to 700MΩ
- * Power Ratings up to 15 Watts.
- * Various Models with Voltage Ratings from 2.5kV to 48kV in free air.
- * N.C.R. design : Non-contact resistance design between resistive and termination cap, put on Willow's unique of conductive pad.



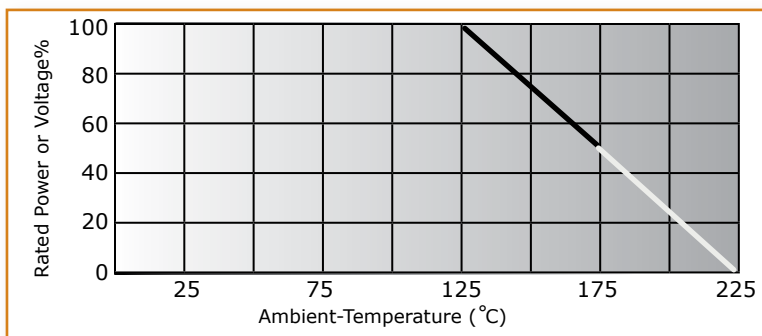
Model Nr.	Wattage	**Max. Continuous Oper. Volt[kV]	Resistance [ohm] Min. Max.	Dimensions in millimeters (inches)			SMD type
				A	B	C	
HTE15	0.7	2.5	1K 200M	15+/-1.5 (.590)	5.0+/-1.5 (.197)	0.8	N/A
HTE19	1.0	3.5	1K 200M	19+/-1.5 (.748)	5.0+/-1.5 (.197)	0.8	N/A
HTE25	1.2	5.5	1K 200M	25.4+/-1.5 (1.0)	5.0+/-1.5 (.197)	0.8	N/A
HTE24	2.0	5.5	1K 300M	24.0+/-1.5 (.944)	8.0+/-1.0 (.314)	1.0	available
HTE39	3.0	10.0	1K 500M	39.0+/-1.5 (1.50)	8.0+/-1.0 (.314)	1.0	available
HTE52	5.0	15.0	1K 500M	52.0+/-1.5 (2.04)	8.0+/-1.0 (.314)	1.0	available
HTE76	7.5	22.5	1K 500M	76.0+/-1.5 (2.54)	9.0+/-1.0 (0.354)	1.0	available on request
HTE102	10.0	32.0	1K 700M	102.0+/-1.5 (4.01)	9.0+/-1.0 (0.354)	1.0	N/A
HTE127	12.0	40.0	1K 500M	127.0+/-1.5 (5.00)	9.0+/-1.0 (0.354)	1.0	N/A
HTE152	15.0	48.0	1K 700M	152.0+/-1.5 (5.98)	9.0+/-1.0 (0.354)	1.0	N/A

- + Custom dimension & specification available upon request
- + Above mentioned Electrical specification applicable for 0.1MΩ ~ 700MΩ only
- + Voltage restricted by the rated power
- ** Vdc, Vrms standard. And at 1.2/50μs impulse ; std. Voltage x 1.5 times available

DIMENSIONS [mm]



DERATING CURVE



* Rated power, and voltage of %

APPLICATION GUIDE ; HTE SERIES

- Automated Test (ATE)
- Medical (Imaging)
- Ion Source
- Chromatography (Gas)
- Medical (Radiation Therapy)
- Military, Radar, Laser, Plasma
- Measurements (High Voltage)
- * HV Capacitor Charging, Discharging
- Electric Power Transmission High Voltage
- Medical (Blood Analyzers)
- Corona Generators
- Multichannel Analyzers
- Ozone Generating
- Detectors
- Nuclear Instrumentation
- Electron Beam
- Pulse Generators
- Surface Analysis
- C T, MRI
- Electrophoresis
- Image Intensifier
- Surface Analysis
- Piezo. Focusing (Poling)
- High Voltage Dividers
- Stress Testing
- Klystron, Magnetron, Microwave

SPECIFICATIONS

Resistance Tolerance :

1% 2% 5% 10% ,and 0.5%..
And (from 1kΩ to 100MΩ ; 0.1%, 0.25% special order available upon request, *but some parts unable to special tolerance)

Endurable Harsh to Environment

(Temperature) :

-55°C to +195°C , Max. broken temperature on resistive of parts is 600? (for 70min.)

Temperature Coefficient of Resistance:

100ppm/°C standard referenced to 25°C, from -25°C to +125°C. (80ppm/°C and special TCR upon request)

Overload/Voltage :

5 times rated power with applied voltage not to exceed 1.5times maximum continuous operating voltage for 5 seconds ΔR 0.5% max.

Thermal Shock :

Mil-Std-202, Method- 107, Cond. C, ΔR 0.25% max.

Load Life :

1.000 hours at rated power ΔR 0.7% max.

Moisture Resistance :

Mil-Std-202, Method 106, ΔR 0.4% max.

Lead Material :

Tinned plated copper solderable semi-flexible axial wire.

Insulation Resistance :

10,000MΩ Min.

Termination Cap of Material:

Tinned Cap.

Encapsulation :

Epoxy conformal.

Resistive Material :

Thicker Film.

Contact method between Resistives and termination Caps :

Individual Conductive Pads . So, called "NCR" Non-contact resistance.