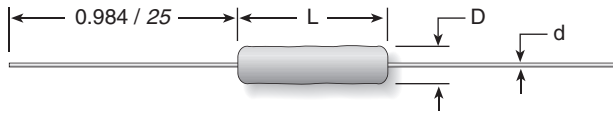


# Miniature Molded Wirewound Resistors

## WH/WN Series



Type	Power Rating (watts)	Resistance Range ( $\Omega$ )	Dim. L (mm/in)	Dim. D (mm/in)	Dim. d (mm/in)
WHA WNA	0.5	0.100 - 1.0K 0.100 - 250	5.08 / 0.200	2.54 / 0.100	0.60 / 0.024
WHB WNB	1	0.100 - 4.0K 0.100 - 1.0K	7.00 / 0.276	3.00 / 0.120	0.60 / 0.024
WHC WNC	2	0.10 - 8.0K 0.10 - 2.0K	11.4 / 0.450	6.86 / 0.270	0.80 / 0.031

## PERFORMANCE CHARACTERISTICS

Test	Conditions Of Test	Performance
Thermal Shock	Rated power applied until thermal stability, -55°C +0°C, -5°C, 15min.	±0.2%
Short-time Overload	5 times rated wattage for 5 seconds	±0.2%
Solderability	Method 208 of MIL-STD-202	±0.2%
Terminal Strength	Pull test: 10 pounds, 5 to 10 seconds, Twist test: 1080°, 5 second/rotation	±0.1%
Dielectric Withstanding Voltage	500Volts rms for 1W, 2W 1000Volts rms for 3W, 1 minute	±0.1%
High Temperature Exposure	Exposed to an ambient temperature of 275 +5/-0°C for 250+/-8 hours,	±0.5%
Moisture Resistance	MIL-STD-202 Method 106, 7b not applicable	±0.2%
Low Temperature Storage	Cold chamber at a temperature of -65 +/--2°C for 24+/-4 hours	±0.2%
Shock, Specified Pulse	6 milliseconds, 10 shocks	±0.1%
Vibration, High Frequency	Frequency varied 10 to 2000Hz, 200G peak, 2 directions 6 hours each	±0.1%
Load Life	1000/2000 hours at rated power, +25°C, 1.5 hours "On", 0.5 hours "Off"	±0.5%

## FEATURES

- WHM, UltraHigh ohmic value precision series,
- WNM, Aryton Perry winding Non-Inductive available  
Resistance  $\leq 50\%$  of WHM Inductance  $< 1\text{nH}$  at 1MHz test,
- Designed to meet the most stringent MIL-R-26F, MIL-STD-202 standard requirements
- Miniaturized Better power to dimension ratios
- Use of the highest quality standard (96% Alumina) ceramic core
- Manufacturing process -Wire winding/ Spot Welding- by Computer Numerical Control (CNC) machine tools to ensure consistency of product quality.
- Encapsulated by epoxy molding compound
- Advanced IC encapsulation mold/die technologies

## SPECIFICATIONS

### Material

**Ceramic Core:** CeramTec Rubalit® 708, 96% alumina contains (702 85% upon request)

**End Caps:** Stainless steel, precision formed

**Leads:** Copper wire, 100% Sn (lead free) coated

**ISOHM** alloy resistance wire TC  $\pm 20\text{ppm}/^\circ\text{C}$

**Encapsulation:** SUMICON 1100/1200 Epoxy molding compound for IC encapsulation

### Electrical

**Standard Tolerance:** D (0.5%), F (1.0%), J (5.0%)

**Temperature Coefficient (ppm/ $^\circ\text{C}$ ):**  $\pm 90$  for 0.100 $\Omega$ ,  $\pm 60$  for  $\leq 0.02_\Omega$ ,  $\pm 300$  for  $\leq 0.03_\Omega$ ,  $\pm 20$  for  $\leq 0.100$ ; Consult with AWWT for best TC. Performance

**Maximum Working Voltage:** (PxR)1/2

## ORDERING INFORMATION

**WHA10RF-T**

Series	Power	Ohms	Tolerance	Package
A, B or C			F = 1% J = 5%	T = Tape A = Ammo

