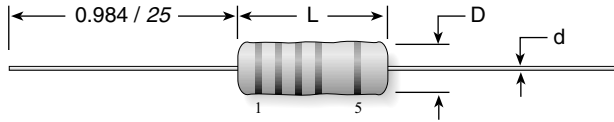


Miniature Molded Wirewound Resistors

WH/WN Series



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

PERFORMANCE CHARACTERISTICS

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

STANDARD PART NUMBERS AVAILABLE

Wattage:	0.5	0.5	1.0	1.0	2.0	2.0
Series:	WHA	WNA	WHB	WNB	WHC	WNC
Ohms						
0.1	WHAR10FE	WNAR10FE	WHBR10FE	WNB10FE	WHCR10FE	WNCR10FE
0.25	WHAR25FE	WNAR25FE	WHBR25FE	WNB25FE	WHCR25FE	WNCR25FE
0.50	WHAR50FE	WNAR50FE	WHBR50FE	WNB50FE	WHCR50FE	WNCR50FE
0.75	WHAR75FE	WNAR75FE	WHBR75FE	WNB75FE	WHCR75FE	WNCR75FE
1	WHA1R0FE	WNA1R0FE	WHB1R0FE	WNB1R0FE	WHC1R0FE	WNC1R0FE
2	WHA2R0FE	WNA2R0FE	WHB2R0FE	WNB2R0FE	WHC2R0FE	WNC2R0FE
4	WHA4R0FE	WNA4R0FE	WHB4R0FE	WNB4R0FE	WHC4R0FE	WNC4R0FE
5	WHA5R0FE	WNA5R0FE	WHB5R0FE	WNB5R0FE	WHC5R0FE	WNC5R0FE
10	WHA10RFE	WNA10RFE	WHB10RFE	WNB10RFE	WHC10RFE	WNC10RFE
15	WHA15RFE	WNA15RFE	WHB15RFE	WNB15RFE	WHC15RFE	WNC15RFE
25	WHA25RFE	WNA25RFE	WHB25RFE	WNB25RFE	WHC25RFE	WNC25RFE
51	WHA51RFE	WNA51RFE	WHB51RFE	WNB51RFE	WHC51RFE	WNC51RFE
75	WHA75RFE	WNA75RFE	WHB75RFE	WNB75RFE	WHC75RFE	WNC75RFE
100	WHA100FE	WNA100FE	WHB100FE	WNB100FE	WHC100FE	WNC100FE
150	WHA150FE	WNA150FE	WHB150FE	WNB150FE	WHC150FE	WNC150FE
200	WHA200FE	WNA200FE	WHB200FE	WNB200FE	WHC200FE	WNC200FE
250	WHA250FE	WNA250FE	WHB250FE	WNB250FE	WHC250FE	WNC250FE
330	WHA330FE		WHB330FE	WNB330FE	WHC330FE	WNC330FE
470	WHA470FE		WHB470FE	WNB470FE	WHC470FE	WNC470FE
560	WHA560FE		WHB560FE	WNB560FE	WHC560FE	WNC560FE
750	WHA750FE		WHB750FE	WNB750FE	WHC750FE	WNC750FE
1K	WHA1K0FE		WHB1K0FE	WNB1K0FE	WHC1K0FE	WNC1K0FE
2.5K			WHB2K5FE		WHC2K5FE	

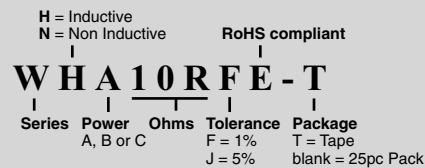
FEATURES

- WHM, UltraHigh ohmic value precision series,
- WNM, Aryton Perry winding Non-Inductive available. Inductance <1nH 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® 96% alumina
End Caps: Stainless steel, precision formed
Leads: Copper wire, 100% Sn (lead free) coated
ISOHOM alloy resistance wire TC+/-20ppm/°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/°C):
 ± 90 for 0.100 Ω compound
 ± 20 for >0.100 Ω
Maximum Working Voltage: (PxR)1/2
Derating: Linearly from 100% @ +70°C to 0% @ +150°C.
Operating Temp: -55°C to +150°C

ORDERING INFORMATION



KEY TO FIVE-BAND CODE

Band	1	2	3	4	5
Color	Digit	Digit	Digit	Multiplier	Tolerance
Black	0	0	0	x 1 Ω	
Brown	1	1	1	x 10 Ω	$\pm 1\%$ (F)
Red	2	2	2	x 100 Ω	$\pm 2\%$ (G)
Orange	3	3	3	x 1K Ω	
Yellow	4	4	4	x 10K Ω	
Green	5	5	5	x 100K Ω	$\pm 0.5\%$ (D)
Blue	6	6	6	x 1M Ω	$\pm 0.25\%$ (C)
Violet	7	7	7	x 10M Ω	$\pm 0.10\%$ (B)
Grey	8	8	8		$\pm 0.05\%$
White	9	9	9		
Gold				x 0.1 Ω	$\pm 5\%$ (J)
Silver				x 0.01 Ω	$\pm 10\%$ (K)