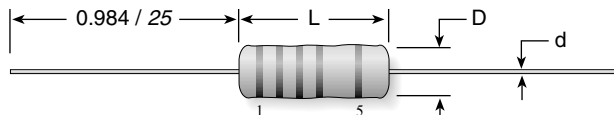


WL Series

Miniature Wirewound Current Sense



Type	Power Rating (watts)	Resistance Range (Ω)	Dim. L (mm/in)	Dim. D (mm/in)	Dim. d (mm/in)
WLA	0.5	0.005-0.100	5.08 / 0.200	2.54 / 0.100	0.60 / 0.024
WLB	1	0.005-0.100	7.00 / 0.276	3.00 / 0.120	0.60 / 0.024
WLC	2	0.010-0.100	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.	±2.0%
Short-time Overload	5 times rated wattage for 5 seconds	±2.0%
Solderability	Method 208 of MIL-STD-202	±2.0%
Terminal Strength	Pull test: 10 pounds, 5 to 10 seconds, Twist test: 1080°, 5 second/rotation	±1.0%
Dielectric Withstanding Voltage	500 Volts rms for 1W. 1 minute	±1.0%
High Temperature Exposure	Exposed to an ambient temperature of 275 +5/-0°C for 250 ±8 hours,	±5.0%
Moisture Resistance	MIL-STD-202 Method 106, 7b not applicable	±2.0%
Low Temperature Storage	Cold chamber at a temperature of -65 ±2°C for 24 ±4 hours	±2.0%
Vibration, High Frequency	Frequency varied 10 to 2000Hz, 200G peak, 2 directions 6 hours each	±1.0%
Load Life	1000/2000 hours at rated power, +25°C, 1.5 hours "On", 0.5 hours "Off"	±5.0%

ORDERING INFORMATION

RoHS compliant

WLAR010FE-T

Series: WLA, Power: 0.5, Ohms: 10, Tolerance: 1%, Package: Tape

A = 0.5, B = 1, C = 2, F = 1%, J = 5%, T = Tape, blank = 25pc Pack

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	± 1% (F)
Red	2	2	2	x 100 Ω	± 2% (G)
Orange	3	3	3	x 1K Ω	
Yellow	4	4	4	x 10K Ω	
Green	5	5	5	x 100K Ω	± 0.5% (D)
Blue	6	6	6	x 1M Ω	± 0.25% (C)
Violet	7	7	7	x 10M Ω	± 0.10% (B)
Grey	8	8	8		± 0.05%
White	9	9	9	x 0.001 Ω	
Gold				x 0.1 Ω	± 5% (J)
Silver				x 0.01 Ω	± 10% (K)

FEATURES

- Ultra-low ohmic value series for Current Sensing applications
- Very low inductance (<1nH at 1MHz Test)
- Miniaturized dimensions, 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

CN49W alloy resistance wire TC ±20ppm/°C

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

Electrical

Standard Tolerance: F (1.0%), J (5.0%)

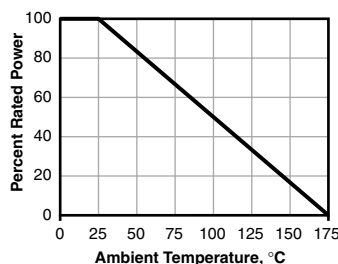
Temperature Coefficient (ppm/°C):

±300ppm/°C for ≤0.03 Ω

±100ppm/°C for ≥0.033 Ω

Maximum Working Voltage: $\sqrt{P \times R}$

DERATING



STANDARD PART NUMBERS FOR WL SERIES

Wattage:	0.5	1.0	2.0
Series:	WLA	WLB	WLC
Ohms			
0.005	WLAR005FE	WLB005FE	WLC005FE
0.01	WLAR01FE	WLB01FE	WLC01FE
0.015	WLAR015FE	WLB015FE	WLC015FE
0.02	WLAR02FE	WLB02FE	WLC02FE
0.025	WLAR025FE	WLB025FE	WLC025FE
0.03	WLAR03FE	WLB03FE	WLC03FE
0.05	WLAR05FE	WLB05FE	WLC05FE
0.10	WLAR10FE	WLB10FE	WLC10FE

Check product availability at www.ohmite.com

To see the latest in resistor technology click on the "What's New" tab at ohmite.com