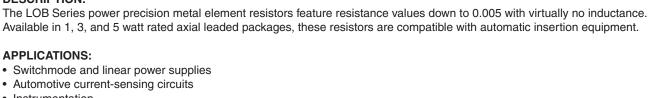
Low Resistance Metal Element Resistor

LOB Series

- Low TCR
- High stability over life
- Tolerances from ±1% to ±5%
- Ultra low resistance values (0.005 Ω to 0.1 Ω)
- Inherently non-inductive (<.02 µh @ 0.5 MHz)
- Available in 1W, 3W, and 5W rated packages
- Lead free RoHS compliant construction available



Instrumentation

APPLICATIONS:

DESCRIPTION:

· Regulators

CONSTRUCTION:

The LOBO Series resistors feature tinned copper leads welded directly to a low-temperature coefficient resistance element in a highly automated proprietary process. The leaded resistor elements are then encapsulated in a molding compound.

Specifications

Style	Continuous Power Dissipation @ 25°C in free air (watts)	Overload Power for 5 seconds (watts)	Maximum Working Voltage (volts)	Maximum Storage Temperature (°C)	
LOB-1	1	5	√1 x R	175	
LOB-3	3	15	√3 x R	175	
LOB-5	5	25	√5 x R	175	

*Power Dissipation - The maximum wattage rating depends upon the amount of heat which can be transferred to the surroundings while not exceeding the maximum element temperature. Ambient air temperature, velocity of cooling air, thermal resistance of heat, and the temperature of surrounding objects will affect this transfer, and must be taken into account when selecting a resistor

Environmental Testing

Test Parameters	MIL-STD 202	MAX %∆R *	Unit	
Load Life (2,000 hours)	Method 108	±1%	%∆R	
Thermal Shock	Method 107	±1%	%∆R	
Vibration	Method 204	±0.5%	%∆R	
Mechanical Shock	Method 213	±0.5%	%∆R	
Dielectric Strength	Method 301	±0.5% @1000 VAC	%∆R	
Insulation Resistance Method 302		>10 ¹⁰ @ 100 VDC	Ohms	

General Note

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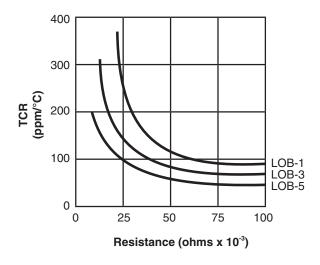


LOB Series

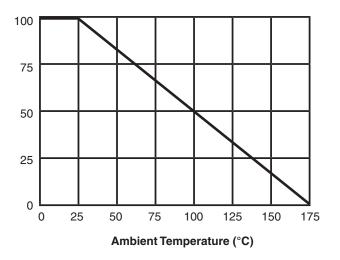
Physical Data

connect point connect point d						
Dimensions (Inches (mm))						
Style	L	D	С	I	d	
LOB-1	0.390 ± 0.010	0.140 ± 0.008	1.31	1.50 ± 0.125	0.0305 ± 0.002	
	(9.9 ± 0.3)	(3.6 ± 0.2)	(33.274)	(38.1 ± 3.2)	(0.813 ± 0.051)	
LOB-3	0.560 ± 0.010	0.2100 ± 0.010	1.31	1.375 ± 0.125	0.0305 ± 0.002	
	(14.224 ± 0.254)	(5.334 ± 0.254)	(33.274)	(34.925 ± 3.175)	(0.813 ± 0.051)	
LOB-5	0.920 ± 0.010	0.330 ± 0.010	1.670	1.250 ± 0.125	0.040 ± 0.002	
	(23.368 ± 0.254)	(8.382 ± 0.254)	(42.418)	(31.750 ± 3.175)	(1.016 ± 0.051)	

Temperature Coefficient of Resistance vs. Resistance Value



Power Derating Percentage vs. Free Air Ambient Temperature:



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LOB Series



Ordering Data

To order, specify style, resistance value, tolerance, and package type as in the following example:

Sample Part No L	OB-3	R010	F	LF	LT
IRC Type LOB-1 (1 watt) LOB-3 (3 watt) LOB-5 (5 watt)			•	•	•
Resistance Value			:		:
0.005Ω 0.02Ω 0.04Ω 0.08Ω			:	:	•
0.01Ω 0.025Ω 0.05Ω 0.1Ω			:	:	:
0.015Ω 0.03Ω 0.07Ω				:	
Tolerance J = 5%, H = 3%, F = 1%	• • • • •	••••	.:		
Lead-Free RoHS Compliant	••••	•••••	•••		
Packaging	••••	••••	• • • •	••••	
LT = Lead Tape (preferred)					
LOB-1 = 3,500 pcs.					
LOB-3 = 1,250 pcs. LOB-5 = 800 pcs.					

BLK = Bulk Pack, 500/box (non-preferred option)

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