Resistors



Thick Film High Voltage/ High Reliability MIL-Approved Metal Glaze™ Resistors

CMH Series

- 1/4 watt to 5 watt
- TCR of ±100 ppm/°C
- Qualified to MIL-PRF-49462
- 330K ohm to 1G ohm range
- ±1%, ±2%, or ±5% tolerance





Electrical Data

IRC Type	MIL Type³	Power Rating @ 70°C (watts)¹	Voltage Rating (volts) ²	Resistance Range (ohms) ⁴	Tolerance (±%)	Maximum TCR (±ppm/°C) ⁴	VCR (ppm/V)
CMH - 1/4	RHV30	1/4	750	330K - 100M	1, 2, 5	100	0 to -5
CMH - 1/2	RHV31	1/2	1,500	330K - 392M			
CMH - 1	RHV32	1	3,000	330K - 499M			
CMH - 2	RHV33	2	5,000	330K - 499M			
CMH - 3	RHV34	3	10,000	330K - 1000M			
CMH - 5	RHV35	5	20,000	330K - 1000M			

Notes:

- 1. For power rating above 70C, see derating curve.
- 2. Voltage rating shown is the rated DC continuous working voltage or the sine-wave RMS absolute maximum voltage at commercial line frequency.
- 3. Marked per MIL-PRF-49462
- 4. Values greater than 100 meg and less than 500 meg, ±200ppm; values greater than or equal to 500 meg, ±500ppm.

Environmental Data

Test Condition*	Maximum ∆R (±3σ)	Typical ∆R
Thermal Shock	±0.25%	±0.10%
Solder Effect	±0.15%	±0.05%
Terminal Strength	±0.20%	±0.10%
Moisture Resistance	±0.50%	±0.20%
Load Life (1000 Hours at 25°C)	±1.00%	±0.25%
Shelf Life (1 year at 25°C)	±0.10%	±0.03%
Low-Temperature Operation	±0.15%	±0.05%
Shock	±0.35%	±0.10%
Vibration	±0.35%	±0.10%
Dielectric Strength	±0.15%	±0.05%
Insulation Resistance at 500 VDC	$\pm 10^{9}\Omega$ min	5 x 10 ¹² Ω typ

Notes:

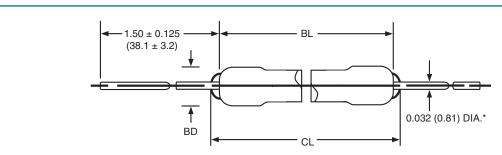
*Test per MIL-PRF-49462 and MIL-STD-202

General Note

BI Technologies IRC Welwyn



Physical Data

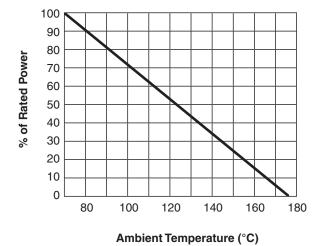


*CMH 1/4 leads are 0.025 (0.64) in diameter

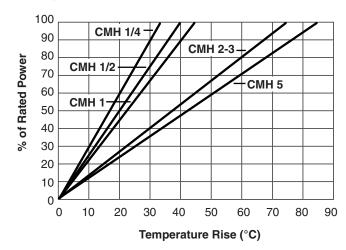
Dimensions (Inches and (mm))

IRC Type	Body Length - BL	Body Diameter - BD	Clean Lead to Clean Lead - CL	
CMH - 1/4	0.275 ± 0.031 (6.98 ± 0.79)	0.088 ± 0.010 (2.22 ± 0.25)	0.400 (10.16)	
CMH - 1/2	0.400 ± 0.031 (10.16 ± 0.79)	0.138 ± 0.016 (3.51 ± 0.41)	0.525 (13.34)	
CMH - 1	0.690 ± 0.062 (17.53 ± 1.57)	0.297 ± 0.031 (7.54 ± 0.79)	0.900 (22.86)	
CMH - 2	1.062 ± 0.062 (26.97 ± 1.57)	0.297 ± 0.031 (7.54 ± 0.79)	1.250 (31.75)	
CMH - 3	2.062 ± 0.062 (52.37 ± 1.57)	0.297 ± 0.031 (7.54 ± 0.79)	2.250 (57.15)	
CMH - 5	3.062 ± 0.062 (77.77 ± 1.57)	0.297 ± 0.031 (7.54 ± 0.79)	3.250 (82.55)	

Power Derating Curve



Temperature Rise Chart



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Electronics

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Ordering Data

