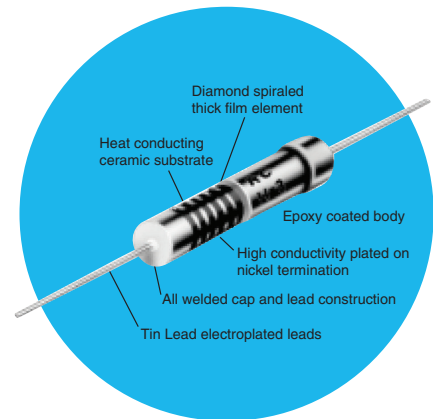


## Thick Film High Voltage/ High Reliability MIL-Approved Metal Glaze™ Resistors

### CMH Series

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

**OBSOLETE**



### Electrical Data

IRC Type	MIL Type <sup>3</sup>	Power Rating @ 70°C (watts) <sup>1</sup>	Voltage Rating (volts) <sup>2</sup>	Resistance Range (ohms) <sup>4</sup>	Tolerance ( $\pm\%$ )	Maximum TCR ( $\pm$ ppm/°C) <sup>4</sup>	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,  $\pm 200$ ppm; values greater than or equal to 500 meg,  $\pm 500$ ppm.

### Environmental Data

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

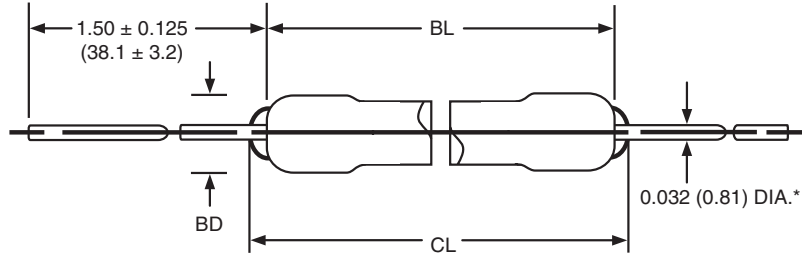
#### Notes:

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

#### General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

## Physical Data

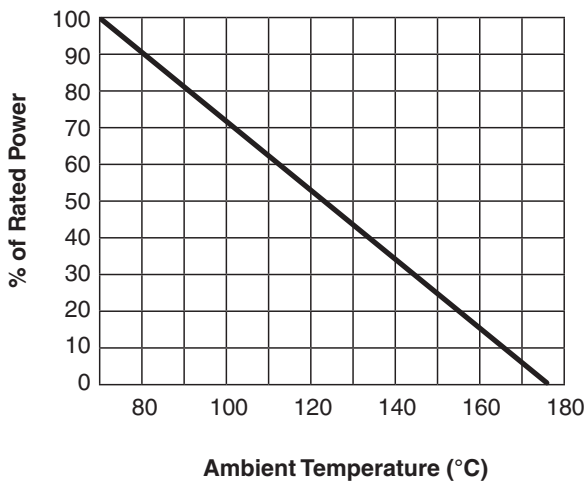


\*CMH 1/4 leads are  
0.025 (0.64) in diameter

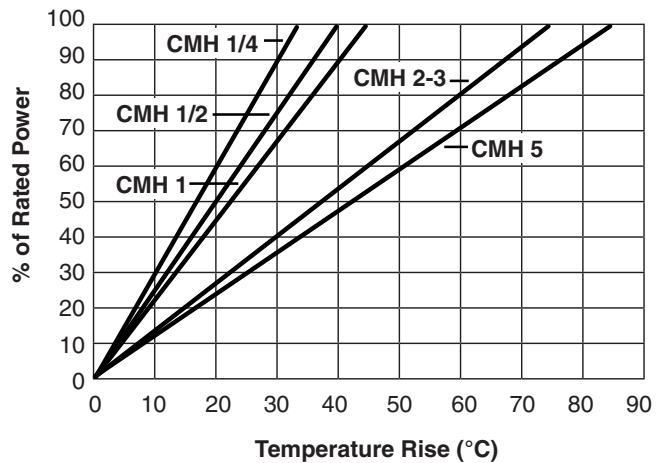
Dimensions (Inches and (mm))

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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## Ordering Data

Sample Part No.....	CMH 3	-	100	-	2206	-	F
IRC Type.....							
CMH 1/4, CMH 1/2, CMH 1, CMH 2, CMH 3, CMH 5							
Temperature Coefficient .....							
±100 ppm/°C							
Resistance .....							
(≥100Ω - First 3 significant digits plus 4th digit multiplier) Example: 100Ω = 1000; 1000Ω = 1001, 150,000Ω = 1503 (>100Ω - "R" is used to designate decimal) Example: 51Ω = 51R0; 1Ω = 1R00; 0.25Ω = R250							
Tolerance.....							
F = ±1% G = ±2% J = ±5%							

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