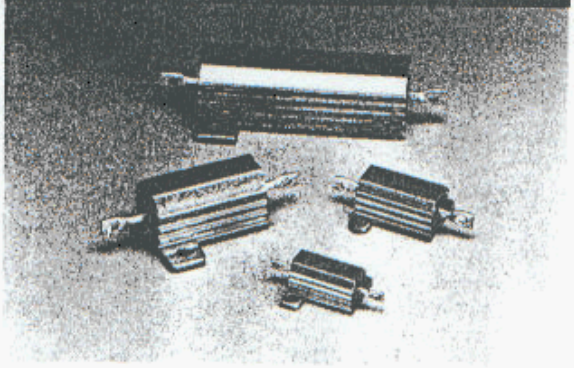
Series CMC

5, 10, 25, 50 Watt

Wirewound, Aluminum-Housed, Axial-Lead Resistors



Description

The CMC series is an exceptionally stable and versatile resistor. The metal housing offers high durability to withstand vibration, shock and harsh environmental conditions. It also offers heat-sinking capabilities and chassis mounting options. Made to MIL-R-18546 standards, the CMC series is axial-lead style, with superior power ratings.

Features

- *All molded and welded construction*
- *Screw mounts on chassis surface*
- *Utilize heat-sink capability*
- *Complete protection against environment*
- *Exceeds MIL-R-18546 standards*

Series CMC Material Specifications

Housing
Anodized aluminum

Internal Coating
Silicone

Core
Ceramic

Terminals
Copperweld, tinned, axial-lead

Weight

CMC5	CMC10	CMC25	CMC50
5 watts	10 watts	25 watts	50 watts
.11 oz.	.25 oz.	.5 oz.	1.04 oz.
3 gms.	7 gms.	14 gms.	29 gms.

Series CMC Electrical Specifications

Resistance Tolerance
±1% standard

Power Rating
Based on 275°C maximum hotspot at 25°C ambient temperature

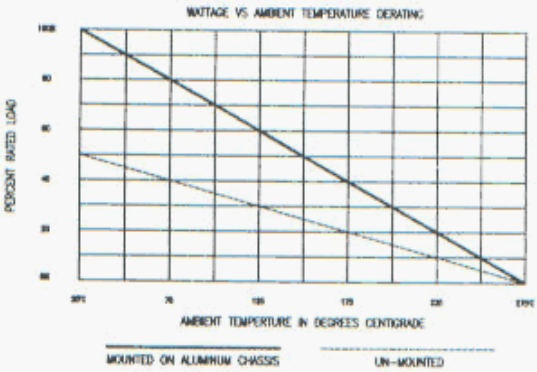
Clarostat Series	*MIL Series*	*Clarostat Wattage*	*MIL Requirement*
CMC5	RE60G	5	5
CMC10	RE65G	10	10
CMC25	RE70G	25	20
CMC50	RE75G	50	30

Proper heat sink as follows:
4 x 6 x 2 x 0.040 aluminum chassis - 5 & 10 watt units
5 x 7 x 2 x 0.040 aluminum chassis - 25 & 50 watt units

Derating
CMC resistors are rated to operate with a 275°C maximum hotspot under full rated power at 25°C ambient temperature per MIL-R-18546. They must be derated for higher ambient temperature per "Wattage Vs Ambient Temperature Derating Curve."

Figure 1

Series CMC Derating



Electrical Specifications continued, next page

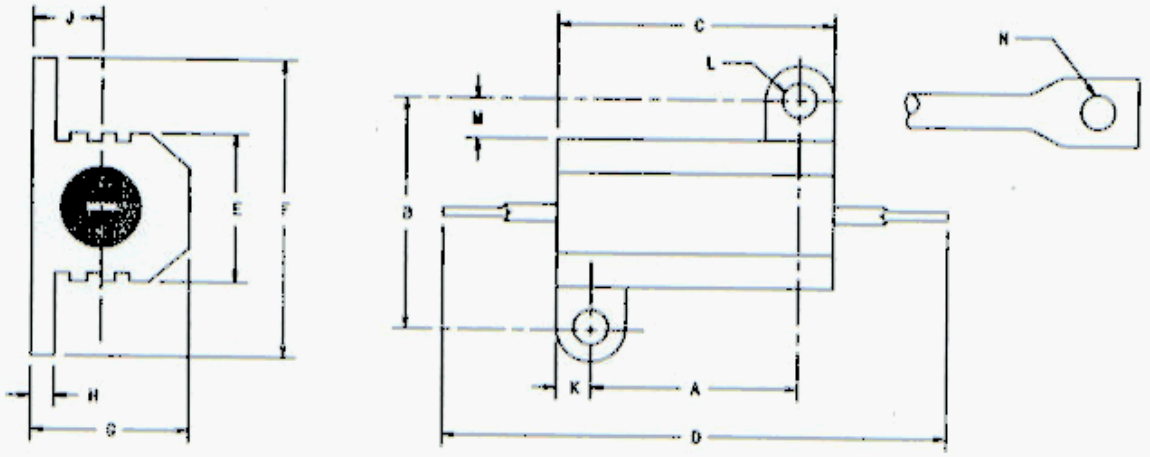
Overload
5 times rated wattage for 5 seconds

Temperature Coefficient
±90 ppm/°C, under 1 ohm
±50 ppm/°C, 1 ohm to 9.99 ohms
±20 ppm/°C, 10 ohms and over

Dielectric Withstanding Voltage
1000 Vac: 5 and 10 watt rating
2500 Vac: 25 and 50 watt rating

Figure 2

Series CMC Dimensions



	A	B	C	D	E	F	G	H	J	K	L	M	N
Tolerance													
inches	±.005	±.005	±.031	±.062	±.015	±.015	±.015	±.010	±.010	±.010	±.005	±.015	±.005
mm	±0.10	±0.10	±0.80	±1.60	±0.40	±0.40	±0.40	±0.25	±0.25	±0.25	±0.10	±0.10	±0.10
CMC-5													
inches	.444	.490	.600	1.125	.334	.646	.320	.065	.140	.078	.093	.078	0.05
mm	11.28	12.45	15.24	28.58	8.48	16.41	8.13	1.65	3.56	1.98	2.36	1.98	1.27
CMC-10													
inches	.562	.625	.750	1.375	.430	.800	.400	.075	.190	.093	.093	.102	.086
mm	4.27	15.88	19.1	34.93	10.92	20.3	10.2	1.91	4.83	2.4	2.4	2.59	2.18
CMC-25													
inches	.719	.781	1.062	1.938	.530	1.080	.560	.085	.260	.172	.125	.115	.086
mm	18.26	19.84	26.97	49.23	13.46	27.43	14.22	2.16	6.6	4.37	3.18	2.92	2.18
CMC-50													
inches	1.563	.844	1.968	2.781	.615	1.140	.615	.085	.300	.196	.125	.107	.086
mm	39.7	21.44	49.99	70.64	15.62	28.96	15.62	2.16	7.62	4.97	3.18	2.71	2.18

Series CMC Standard Resistance Values

Stock Values (Ohms)

Series CMC-5/RE60G*

.100	1.5	5.11	30	200	750	
.200	2.0	10	40	250	1K	
.499	3.0	15	50	300	1.5K	
.500	4.0	20	100	400	2K	
1.00	5.0	25	150	500	2.5K	

Series CMC-10/RE65G*

.5	4	25	100	400	2K	4.5K
1	5	30	150	500	2.5K	5K
1.5	10	40	200	750	3K	
2	15	50	250	1K	3.5K	
3	20	75	300	1.5K	4K	

Series CMC-25/RE70G*

.1	1.5	8	25	100	500	5K
.3	2	10	30	150	750	10K
.5	3	12	40	200	1K	
.7	5	15	50	250	1.5K	
1	6	20	75	300	3K	

Series CMC-50/RE75G*

.1	2	10	75	500	3K	
.3	3	15	100	750	5K	
.5	4	25	150	1K	10K	
.7	5	30	200	1.5K	15K	
1	8	50	250	2K	25K	

Note:

**Units are dual marked with both commercial and military part numbers.*

Series CMC How To Order

Commercial

Clarostat Series + Resistance Value = Part Number

Example:
5 watts + 10 ohm = CMC5-10

Military

Military Designator + wattage + temperature characteristic + resistance value + resistance tolerance = part number

Example:
If 5 watts; RE60 + G + 10R0 + F = RE60G10R0F

RE=Military Designator
60=Wattage
G=Temperature Characteristic
100=Resistance Value
F=Resistance Tolerance