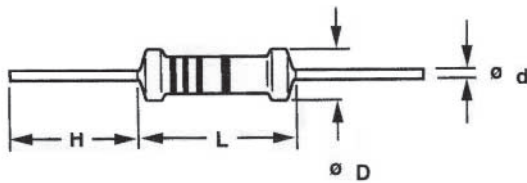


INTRODUCTION

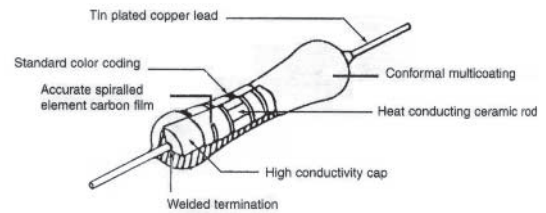
The resistance temperature coefficient of MEGASTAR-OHM carbon film resistors is relatively high. Their resistance value changes inversely with temperature. But, as they are big in volume, causing quick dissipation of heat and low temperature rise, they are good enough in quality, stability and reliability, and are therefore popularly used in consumer electronic appliances.

Dimensions



FEATURES

- Industry's lowest cost!
- Delivery from stock in bulk, taped, and strip pack!
- Exceptional long-term stability.
- Exceeds carbon comp MIL-R-11 performance.
- Standard tolerances: $\pm 2\%$, $\pm 5\%$ ($\pm 1\%$ available)
- Variety of packaging - bulk, strip pack, 26mm and 52mm tape and reel, cut and formed, or radial Panasert/Avisert.
- They meet - or far exceed - such specifications as EIA, RS196A, JIS-C-6402 and IEC-115.
- * Other Ohmic values available upon request.



GENERAL SPECIFICATIONS

Internal Code	MIL Style	Type	Power Rating	Dimensions				Max. Working V.	Max. Overload V.	*Resistance Range	
				L	D	d	H (min)			$\pm 2\%$ (G)	$\pm 5\%$ (J)
C12	RD-50	CR 1/8	1/8W (.125W)	3.7 \pm 0.4	1.5 \pm 0.2	.45 \pm .02	27	200V	400V	0.1 Ω -33M	0.1 Ω -33M
C16		CR 1/6	1/6W (.16W)	3.7 \pm 0.4	1.5 \pm 0.2	.45 \pm .02	27	200V	400V	0.1 Ω -33M	0.1 Ω -33M
C18	RD-50	CRS 1/4	1/4W Mini Size	3.7 \pm 0.4	1.5 \pm 0.2	.45 \pm .02	27	200V	400V	0.1 Ω -33M	0.1 Ω -33M
C25		CR 1/4	1/4W (.25W)	6.5 \pm 0.5	2.3 \pm 0.2	.56 \pm .02	27	250V	500V	0.1 Ω -33M	0.1 Ω -33M
C33	RD-60	CRS 1/2	1/2W Mini Size	6.5 \pm 0.5	2.8 \pm 0.3	.56 \pm .02	25	300V	600V	0.1 Ω -33M	0.1 Ω -33M
C50		CR 1/2	1/2W (.5W)	9 \pm 1	3.5 \pm 0.5	.56 \pm .02	25	350V	700V	0.1 Ω -33M	0.1 Ω -33M
CS1	RD-65	CRS 1	1W Mini Size	9 \pm 1	4.0 \pm 0.5	.65 \pm .02	25	400V	800V	10 Ω -1M	0.1 Ω -22M
CR1		CR 1	1W	12 \pm 1	4.0 \pm 0.5	.8 \pm .03	25	500V	1000V	10 Ω -1M	0.1 Ω -22M
CR2	RD-70	CR2	2W	16 \pm 1	5.5 \pm 0.5	.8 \pm .03	27	500V	1000V	10 Ω -1M	0.1 Ω -22M
CS3	RD-75	CRS3	3W Mini Size	18 \pm 1	6.5 \pm 0.5	.8 \pm .03	27	650V	1200V	10 Ω -470K	0.1 Ω -22M
CR3		CR3	3W	24 \pm 1	8.5 \pm 0.5	.8 \pm .03	27	650V	1200V	10 Ω -470K	0.1 Ω -22M

Part Numbering system

CR

Type
CR
CRS

1/4

Rated Power
1/8
↓
3W

5%

Resistance tolerance
$\pm 5\%$
$\pm 2\%$
$\pm 1\%$

2K2

Nominal Resistance		
Code	Description	
R10	0.10	OHMs
22R	22.0	OHMs
2K2	2.2X10 ³	OHMs
22K	22X10 ³	OHMs
33M	33X10 ⁶	OHMs

T/R

Packaging	
Code	Description
B	Bulk
T/R	Tape & Reel
T/B	Tape & Box
PATR	Avisert T/R
PNTR	Panasert T/R

CARBON FILM FIXED RESISTORS

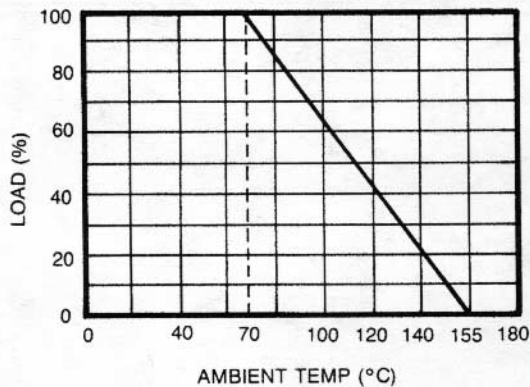


CR, CRS

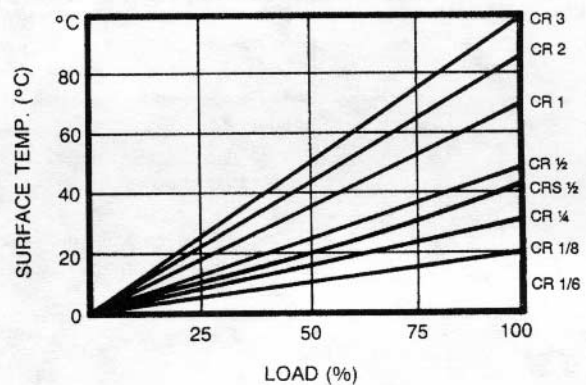
LEADFREE
RoHS Compliant

Requirements	Performance					Test Method	
						JIS C 5202	MIL-STD-202
Operating Temp. Range	-55°C ~ +155°C					-----	-----
Temp. Coefficient (ppm/°C)	T.C.R. TYPE	±450	-150 -700	-150 -1000	-150 -1300	5.2	Method 304
	.125W	under 1K	1.1K -47K	51K -510K	560K -1M		
	.25W	under 10K	1.1K -150K	160K -2.2M	2.4M -5.1M		
Noise (µV/V)	Noise TYPE	0.1	0.3	0.6	1.0	5.9-11	Method 308
	.125W & 0.16W	---	under 10K	11K -100K	over 110K		
	.125W & over	under 100K	110K -510K	560K -2.2M	over 2.4M		
Dielectric Withstanding Voltage	No evidence of flashover or breakdown					5.7 - A	Method 301
Resistance to Solvents	Permanent marking. No physical or electrical damage or deterioration					-----	Method 215
Short Time Overload	³ Rmax ±(1%+0.05)					5.5 - A	
Resistance to Soldering Heat	³ Rmax ±(1%+0.05)					6.4 350°C / 3 sec.	Method 210
Temperature Cycling	³ Rmax ±(0.5%+0.05)					7.4 55°C/85°C	Method 107
Vibration	³ Rmax ±(0.5%+0.05)					6.3.3-A	Method 204
Moisture Resistance	R > 100K	³ Rmax ≤ ±5%				7.9, 40°C 90-95% RH, / 1000 hrs.	Method 106
	R ≤ 100K	³ Rmax ≤ ±(3%+0.05)					
Load Life	R > 100K	³ Rmax ≤ ±3%				7.10 70°C 1000 hrs.	Method 108
	R ≤ 100K	³ Rmax ≤ ±(2%+0.05)					

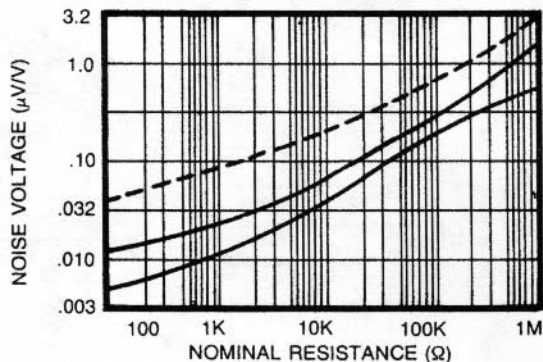
DERATING CURVE



SURFACE TEMP RISE



CURRENT NOISE



TEMPERATURE COEFFICIENT

