

# Carbon Film Resistor - CR Series

## INTRODUCTION

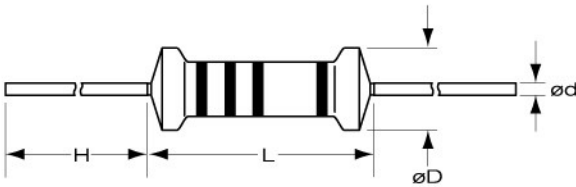
Featuring consistency and stably-controlled, these carbon film resistors with reasonable prices are widely & largely used in the electronic, electrical and information industries.

This resistor is a ceramic bar tightly coated with a carbon film which is composed of carbon separated from organic compound through the treatment of high-temperature vacuum. After the carbon-coated bar is connected with proper joint and engraved with grooves, its surface is finished with epoxy resin so that the bar is enclosed with a protective film.

## FEATURES

- Industry's lower cost and deliver from stock.
- Exceptional long-term stability.
- Exceeds carbon comp MIL-R-11 performance.
- Standard tolerance:  $\pm 2\%$ ,  $\pm 5\%$
- Variety of packing-bulk, strip pack, 26mm and 52mm tape and reel, cut and formed or radial Pana.

## DIMENSIONS:



STYLE	POWER RATING (Watt)	DIMENSION (mm)				VALUE RANGE
		L	øD	H	ød	
CR	1/6W; 1/8W, 1/4WS	3.2 $\pm$ 0.2	1.8 $\pm$ 0.3	28 $\pm$ 2	0.45 $\pm$ 0.05	1 $\Omega$ ~10M
CR	1/4W, 1/2WS	6.0 $\pm$ 0.2	2.3 $\pm$ 0.3	26.5 $\pm$ 2	0.50 $\pm$ 0.05	1 $\Omega$ ~10M
CR	1/2W, 1WS	9.0 $\pm$ 0.5	3.2 $\pm$ 0.3	26 $\pm$ 2	0.58 $\pm$ 0.05	1 $\Omega$ ~10M
CR	1W, 2WS	11.0 $\pm$ 0.5	4.5 $\pm$ 0.5	35 $\pm$ 2	0.68 $\pm$ 0.05	1 $\Omega$ ~10M
CR	2W, 3WS	15.0 $\pm$ 0.5	5.0 $\pm$ 0.5	32.5 $\pm$ 2	0.78 $\pm$ 0.05	1 $\Omega$ ~10M
CR	3W, 5WS	17.0 $\pm$ 0.5	6.0 $\pm$ 0.5	32 $\pm$ 2	0.78 $\pm$ 0.05	1 $\Omega$ ~10M

## ELECTRICAL CHARACTERISTICS:

Power Rating 70°C (Style)	CR 1/6;1/8W 1/4WS	CR 1/4W, 1/2WS	CR 1/2W 1WS	CR 1W, 2WS	CR 2W, 3WS	CR 3W, 5WS
Operating Temp. Range	-55°C ~ +155°C					
Max. Working Voltage	200V	300V	350V	500V	500V	600V
Max. Overload Voltage	400V	600V	700V	1000V	1000V	500V
Dielectric Withstanding Voltage (AC)	400V	500V	700V	1000V	1000V	1000V
Max. Intermittence Overload Voltage	500V	600V	700V	1000V	1000V	1000V
T.C.R. (PPM)	CR1/8W,CR1/4W,CR1/2W			CR1W,CR2W,CR3W		
	100K $\Omega$ down	100K $\Omega$ ~1M $\Omega$	1M up	100K $\Omega$ down	100K $\Omega$ ~1M $\Omega$	1M $\Omega$ up
	+350/-500	0 ~ -700	0 ~ -1500	+350 ~ -500	0 ~ -700	0 ~ -1500

FIG.1 DERATING CURVE

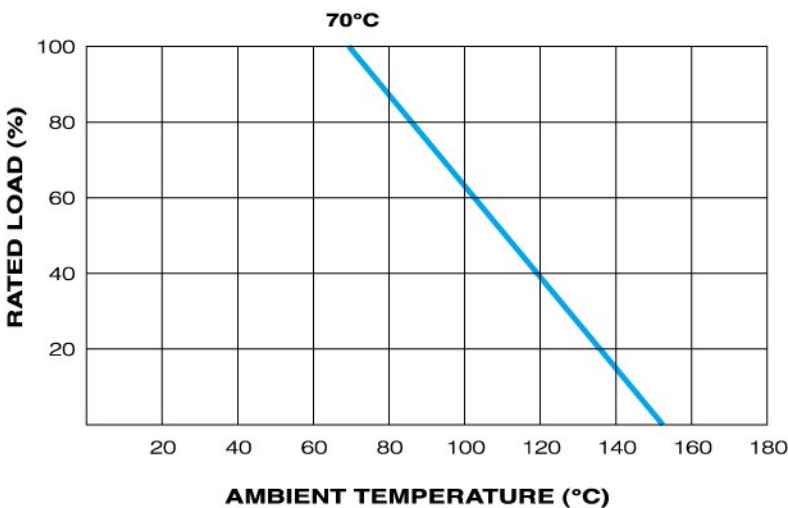


FIG.2 HOT-SPOT TEMPERATURE

