

CARBON FILM RESISTORS

How To Order:

Series: CF Part No.

<u>CF</u>	<u>12</u>	<u>J</u>	<u>2K3</u>	<u>T</u> <u>S1</u>
Series Carbon Film Resistor	Wattage CF12=1/8W CF25=1/4W CF50=1/2W CF100=1W CF200=2W CF300=3W	Tolerance F=1% G=2% J=5%	Value 1R=1 ohm 2.3R=2R3 1K=1000 ohm 2.3K=2K3 2.3M=2M3	Packing T=Taped B=Bulk

(S1 means special spec. Standard goods is without it.)

Description: CARBON FILM RESISTOR 1/8W 5% 2K3

Note:

CF12=1/8W, CF25=1/4W, CF50=1/2W, CF100=1W, CF200=2W, CF300=3W

The normal tolerance of CARBON FILM RESISTOR is 5%.

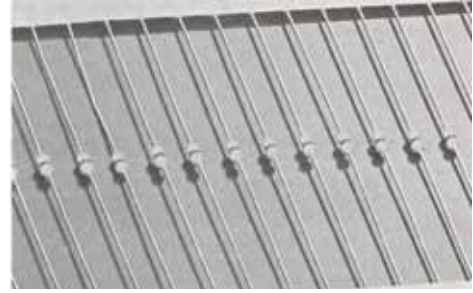
The normal packing of CARBON FILM RESISTOR is Tape & Box.

The standard value for 5% is 0 ohm & 1 ohm to 10 Meg.

CARBON FILM RESISTORS

CF Series

1 / 6 W, 1 / 8 W, 1 / 4 W, 1 / 2 W, 1 W, 2 W, 3 W
CF-12, CF-25, CF-50, CF-100, CF-200, CF-300



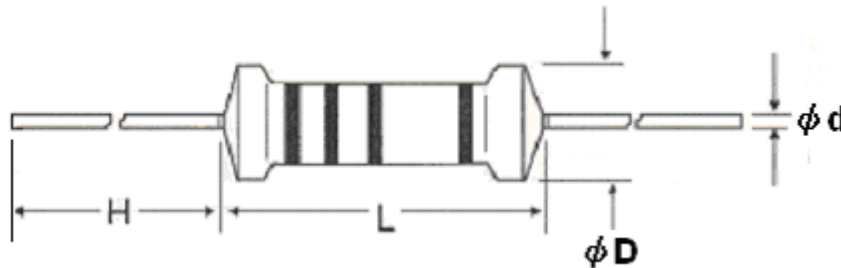
INTRODUCTION

Featuring consistency and stably-controlled, these carbon film resistors with reasonable price 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: $\pm 2\%$, 5% .
- Variety of packing-bulk, strip pack, 26mm and 52mm tape and reel, cut and formed or radial Pana. /Avis.

DIMENSIONS:



STYLE	DIMENSION(mm)				POWER RATING (Watt)	VALUE RANGE
	L	ØD	H	Ød		
CF-12	3.3±0.4	1.8±0.3	28±2	0.5±0.05	1/6W ; 1/8W	1Ω~10M
CF-25	6.3±0.5	2.3±0.3	28±2	0.6±0.05	1/4W	1Ω~10M
CF-50	9±0.5	3.2±0.5	26±2	0.6±0.05	1/2W	1Ω~10M
CF-100	11.5±1.0	4.5±0.5	35±2	0.8±0.05	1W	1Ω~10M
CF-200	15.5±1.0	5.0±0.5	32±2	0.8±0.05	2W	1Ω~10M
CF-300	17.5±1.0	6.5±0.5	35±2	0.8±0.05	3W	1Ω~10M

CARBON FILM RESISTORS

ELECTRICAL CHARACTERISTICS

STYLE	CF-12	CF-25	CF-50	CF-100	CF-200	CF-300
Power Rating 70°C	1/6; 18/W	1/4W	1/2W	1W	2W	3W
Operating Temp. Range	-55°C~±155°C					
Max. Working Voltage	200V	250V	350V	500V	500V	600V
Max. Overload Voltage	400V	500V	700V	1000V	1000V	1000V
Dielectric Withstanding Voltage(AC)	300V	500V	700V	1500V	1500V	1500V
Max. Intermittence Overload Voltage	500V	750V	1000V	1500V	2000V	2000V
T.C.R. (PPM)	CF-12/CF-25/CF-50			CF-100/CF-200/CF-300		
	100KΩ	101KΩ~1MΩ	1MΩ	100KΩ	101KΩ~1MΩ	1MΩ
	+350/-500	+350/-700	+350/-1000	+350PPM	+350/-500	+350/-1000

ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD	APPRAISE
Short Time Overload	JIS-C-5202 5.5: 2.5 times RCWV for 5 seconds	±(0.75%+0.05Ω)
Dielectric Withstanding V.	JIS-C-5202 5.7: in V-Block for 60 seconds	By Type
Temperature Coefficient	JIS-C-5202 5.2: -55°C~+155°C	By Type
Insulation Resistance	JIS-C-5202 5.6: in V-Block	1000 MΩ
Solderability	JIS-C-5202 6.5: 245°C for 5±0.5 seconds	95% min. Coverage
Resistance to Solvent	JIS-C-5202 6.9: Trichroethance for 1 min. With ultrasonic.	No deterioration
Terminal Strength	Direct load for 10 sec. In the direction of the terminal leads	2.5Kg/24.5N
Pulse Overload	JIS-C-5202 5.8: 4 time RCWV 10000 cycles (1sec.on, 25 sec. off)	±(2%+0.05Ω)
Load Life in Humidity	JIS-C-5202 7.9: 40±2°C, 90~95% RH at RCWV for 1000 hrs (1.5 hrs. On, 0.5hrs. Off)	±(3%+0.05Ω)
Load Life	JIS-C-5202 7.10: 70°C at RCWV for 1000hrs (1.5hrs.On, 0.5hrs. off)	±(3%+0.05Ω)
Temperature Cycling	JIS-C-5202 7.4: 65°C~room temp~150°C~room temp. For 5 cycle	±(1%+0.05Ω)
Soldering Heat	JIS-C-5202 6.4: 35±10°C for 3±0.5 seconds	±(1%+0.05Ω)

* Rated continuous Working Voltage (RCWV) = $\sqrt{\text{power rating} \times \text{resistance value}}$

CF Series

FIG.1 DERATING CURVE

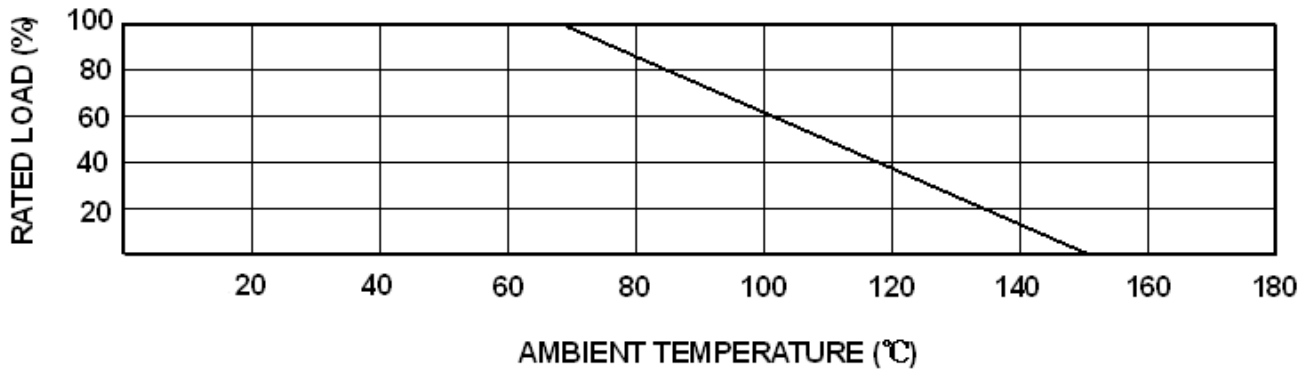


FIG.2 HOT-SPOT TEMPERATURE

