



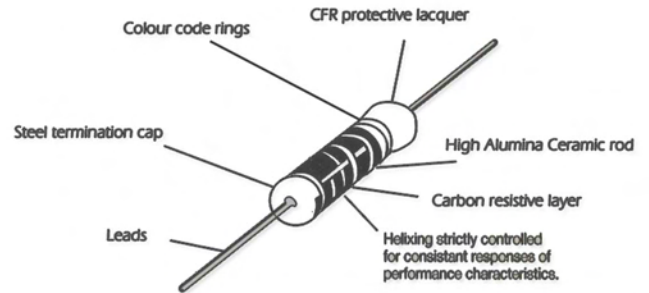
## CARBON FILM RESISTORS

**Series:** CF / CFS

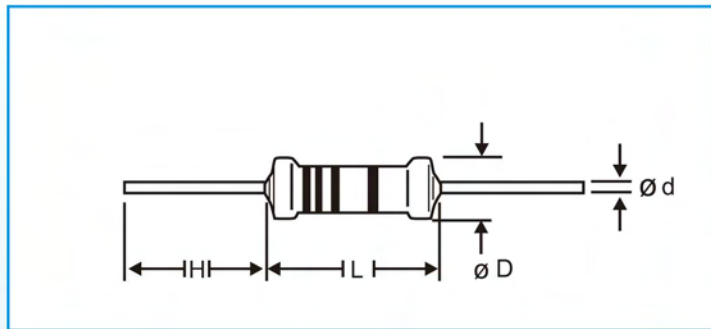
**Features:**

- ▶ Economical as Produced on automated mass production.
- ▶ Superior quality raw materials to ensure stability & reliability.
- ▶ Available in T52 tape packing.

**Construction:**



**Dimensions:**

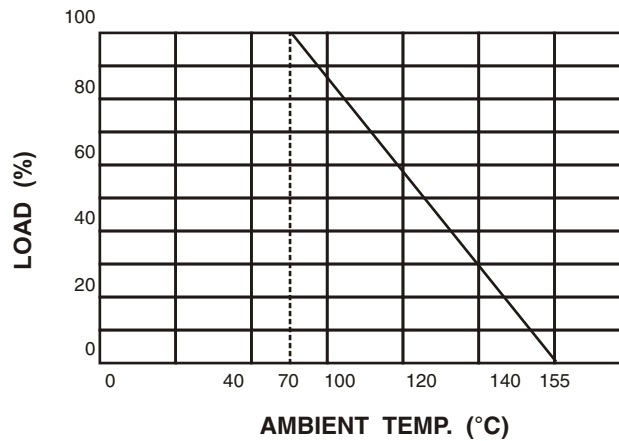


TYPE	POWER RATING	TOL (±)	DIMENSION (mm)				Max. Working Voltage	Max.Overload Voltage
			L	D	H (min)	d		
CF 25	0.25W	5%	6.5 ± 0.5	2.3 ± 0.2	28	0.60 ± 0.05	250V	500V
CFS 50	0.5W	5%	6.5 ± 0.5	2.3 ± 0.2	28	0.60 ± 0.05	250V	500V
CF 50	0.5W	5%	9.5 ± 1	3.5 ± 0.5	25	0.60 ± 0.05	350V	700V
CFS 100	1W	5%	9.5 ± 1	3.5 ± 0.5	25	0.60 ± 0.05	350V	700V
CF 100	1W	5%	12 ± 1	4.5 ± 0.5	25	0.80 ± 0.05	500V	1000V
CFS 200	2W	5%	12 ± 1	4.5 ± 0.5	25	0.80 ± 0.05	500V	1000V
CF 200	2W	5%	16 ± 1	5.5 ± 0.5	32	0.80 ± 0.05	500V	1000V
CFS 300	3W	5%	16 ± 1	5.5 ± 0.5	32	0.80 ± 0.05	500V	1000V

**Performance Data :**

TEST	PROCEDURE	SPEC.
Dielectric Withstanding Voltage	V-Block Method, 3X Rated Voltage Duration : 1 Min.	$\Delta R < \pm (0.5\% + 0.05 \text{ Ohm})$
Insulation Resistance	V-Block Method, DC 500V Duration : 1 Min.	$> 10,000 \text{ M Ohm}$
Temp. Cycling	5 cycles of - 65°C, 25°C, +155°C, 25°C	$\Delta R = (1\% + 0.05 \text{ Ohm})$
Short Time Overload	2.5X Rated Voltage Duration : 5 sec.	$\Delta R = (1\% + 0.05 \text{ Ohm})$
Damp Heat Steady State	40°C95% relative humidity, Duration : 56 Day.	$\Delta R = (5\% + 0.05 \text{ Ohm})$
Load Life	Rated Voltage at 70°C ambient Duration : 2000 Hrs.	$\Delta R = (5\% + 0.05 \text{ Ohm})$
Robustness of Terminations	Tensile: 10N Duration: 10 Sec. Bending : 180°, > 3 Bends Torsion : 3 Rotation of 360° Each	$\Delta R = (0.5\% + 0.05 \text{ Ohm})$
Resistance to Soldering Heat	Temp. 260°C $\pm$ 5°C Duration : 10 Sec.	$\Delta R = (1\% + 0.05 \text{ Ohm})$
Shock (Medium Impact)	1 Km/S <sup>2</sup>	$\Delta R = (1\% + 0.05 \text{ Ohm})$
Vibration (High Frequency)	10 to 2000 Hz: m/S <sup>2</sup>	$\Delta R = (1\% + 0.05 \text{ Ohm})$
Low Temp. Exposure	At - 65°C Duration : 2 Hrs.	$\Delta R = (1\% + 0.05 \text{ Ohm})$
High Temp. Exposure	At +155°C Duration : 16 Hrs. No Load Condition	$\Delta R = (5\% + 0.05 \text{ Ohm})$
Solderability	Dip Method, Solder Bath Temp. 230°C $\pm$ 5 °C. Duration 5 Sec.	95% Coverage
Resistance to Solvent	Solvent : Trichloroethylene Duration : 3 Min.	Marking should be legible

**DERATING CURVE**



**SURFACE TEMP. RISE**

