Carbon Film Fixed Resistors

Power Rating: 1/8W-5W
Resistance Value: 0Ω-22MΩ
Resistance Tolerance: ±2%, ±5%

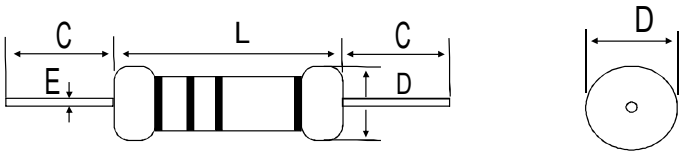
● Features:

1. Stable performance, extensive resistance, small size, high operating temperature and high ultimate voltage.
2. Highly adaptive pulse load, good high frequency performance
3. Operating ambient temperature: -55℃ to +125℃.
4. The normal size coating is yellow and the small size coating is brown.
5. The CF series resistors are ideal for general use applications including electrical equipment, small appliances and consumer electronics, such as televisions and other high-volume products. The CF series feature standard tolerances is G (±2%) and J (±5%), with a resistance range from 0Ω to 22MΩ.
6. Power: 1/8W, 1/6W, 1/4WS, 1/4W, 1/2WS, 1/2W, 1WS, 1W, 2WS, 2W, 3WS, 3W, 5WS, 5W
7. Delivery: 5-7days
8. Conforms to the ROHS standard and the LEAD-FREE non-lead standard

● Applications:

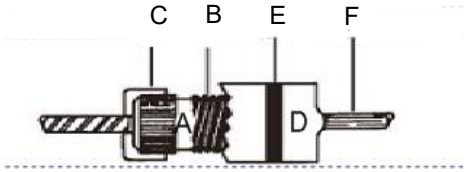
1. Consumer Electronic
2. Telecommunications
3. Household Appliances
4. Automotive, Computer, Instrumentation

● Dimensions



POWER	DIMENSIONS (mm)				MAX WORKING	MAX OVERLOAD
RATING	L±1	D±0.5	E±0.05	C±3	VOLTAGE	VOLTAGE
1/8W	3.5	1.8	0.4	28	200V	400V
1/6W	3.5	1.8	0.4	28		
1/4W	6	2.3	0.4	28	250V	500V
1/2W	9	3.2	0.5	28	350V	700V
1WS	9	3.2	0.5	28		
1W	11	4.5	0.78	35	500V	1000V
2WS	11	4.5	0.78	35		
2W	15	5	0.78	35	500V	1000V
3W	17	6	0.78	35		
5WS	17	6	0.78	35	500V	1000V
5W	24	8	0.78	30		

● Construction Drawing:

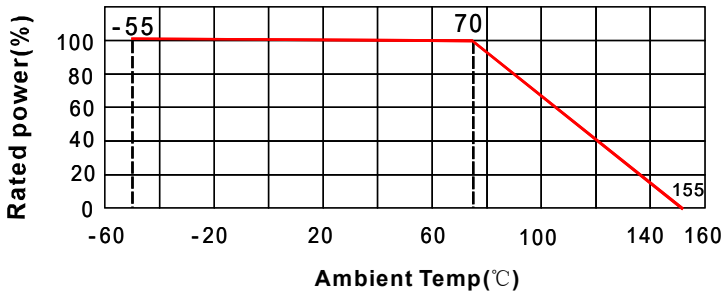


A.High heat exchanged Ceramic Core .
B.High stability Electric conduction film
C.Iron Cap
D.Epoxy resin coating
E.Color Ring
F.Tinned copper lead wire or CP lead wire

● Performance Specifications

Test Item	Test Condition	Performance
Temperature coefficient	Test the resistance value at normal temperature and normal temperature added 100℃,calculated per ℃ resistance value change rate	(-1000～+350PPM)/℃
Temp.Range	\	-55℃~155℃
Short Time Overload	2.5×rated voltage or Max.overload voltage(get the lower)for 5seconds	△R≤±(1%R_0+0.05Ω)
Pulse overload	At 4×rated voltage or Max.pulse overload voltage(get the lower)cycle 10000±200 times(1second on,25seconds off)	△R≤±(1%R_0+0.05Ω)
Resistance to soldering heat	Immerge into the 350±10℃ tin stove for 2-3seconds	△R≤±(1%R_0+0.05Ω)
Solderability	Immerge into the 245±5℃ tin stove for 2-3seconds	The soldering area is over 95%
Load Life in humidity	Overload rated voltage or Max.working voltage(get the lower)for 1000hours (1.5 hours on and half-hour off)at the 40±2℃ and 90%-95% relative humidity.	△R≤±(5%R_0+0.1Ω)
Load Life in heat	Overload rated voltage or Max.working voltage(get the lower)for 1000hours (1.5 hours on and half-hour off)at the 70±2℃.	△R≤±(5%R_0+0.1Ω)
Insulation Voltage	DC 1/6W-1/8W:300V 1/4W:500V 1/2W:600V 1W-5W:1000V	no breakdown,no flashover
Temperature Cycle	At -55℃ for 30min,then at+25℃ for 10-15 min,then at+155% for 30 min, then at+25℃ for 10-15 min,total 5 cycles.	△R≤±(5%R_0+0.05Ω)

● Derating



● How To Order

CF	1/2W	10Ω	J	T/B
①	②	③	④	⑤

① Type:CF
② Rated Power(W):1/8W-5W
③ Resistance Value(Ω):0.1Ω-22MΩ
④ Tolerance(%):±2%~±5%
⑤ Packing(T/R:tape&reel,T/B:tape in box,bulk)