

Carbon Film Resistors



CF Series

MERITEK

FEATURES

- Economically priced for commercial and industrial applications
- Wide selection of power ratings and resistance values
- EIA color coding
- Resistance to industrial solvent
- Standard tape & reel package

PART NUMBERING SYSTEMS

Meritek Series

Power Rating

CODE	12	25	50	100	200
	0.125W	0.25W	0.5W	1W	2W

Resistance

First 2 digits are significant

3rd digit is multiplier

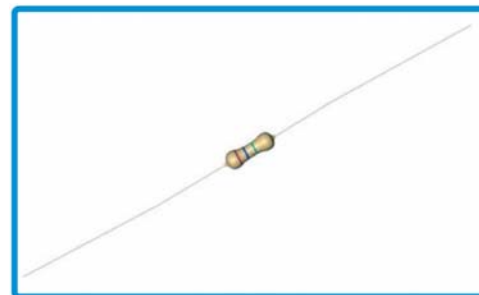
"R" indicates decimal for values below 10 ohm

Tolerance

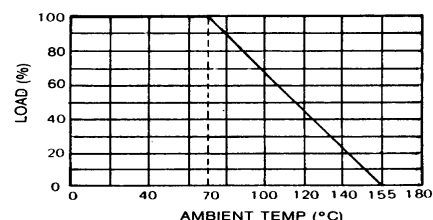
Code	G	J	K
	±2%	±5%	±10%

Tape & Reel

CF 25 103 J TR



DERATING CURVE



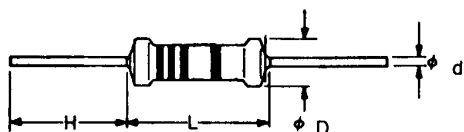
RATING AND AVAILABILITY

Type	CF12	CF25S	CF25	CF50S	CF50	CF100S	CF100	CF200S	CF200
Power rating @ 70°C	0.125W	0.25W	0.25W	0.5W	0.25W	1W	1W	2W	2W
Max working voltage	150V	200V	250V	300V	280V	400V	450V	500V	500V
Max overload voltage	300V	400V	500V	500V	500V	800V	1000V	1000V	1000V
Dielectric withstanding voltage	300V	400V	500V	500V	500V	800V	1000V	1000V	1000V

DIMENSIONS

TYPE	BODY		LEADWIRE	
	(L)	(D)	(H)	(d±0.03)
CF12	3.3 ±0.3	1.8 ±0.3	29±2	0.45
CF25S	3.3 ±0.3	1.8 ±0.3	29±2	0.45
CF25	6.3 ±0.5	2.3 ±0.3	28±2	0.55
CF50S	6.3 ±0.5	2.3 ±0.3	28±2	0.55
CF50	9.0 ±0.5	3.2 ±0.5	26±2	0.65
CF100S	9.0 ±0.5	3.2 ±0.5	26±2	0.65
CF100	11.5 ±1.0	4.5 ±0.5	35±2	0.78
CF200S	11.5 ±1.0	4.5 ±0.5	35±2	0.78
CF200	15.5 ±1.0	5.0 ±0.5	32±2	0.78

DIMENSIONS



REQUIREMENT

PERFORMANCE

Operating Temp Range		-55 to 155°C (derated at 70°C/see chart)	
Temperature Cefficient (ppm/°C)	ppm/°C	CF100S and <1W	≥1W
	Under 100KΩ	±350ppm	+350ppm~-500ppm
	100KΩ - 1MΩ	0~-500ppm	0~-700ppm
	1MΩ - 4M7Ω	0~-1000ppm	0~-1500ppm
Noise(uV/V)	uV/V	0.125W	0.25W and over
	0.1		1 ohm-10K ohm
	0.3	1 ohm-10K ohm	11K ohm-91K ohm
	0.5	11K ohm-91K ohm	100K ohm-1M ohm
Short Time Overload		ΔR ≤ ±(0.75% + 0.05 ohm)	
		ΔR ≤ ±(0.5% + 0.05 ohm)	
Temperature Cycling		ΔR ≤ ±(1% + 0.05 ohm)	
Soldering Effect		ΔR ≤ ±(0.5% + 0.05 ohm)	
Vibration		ΔR ≤ ±(0.5% + 0.05 ohm)	
Moisture Resistance	R > 100K	ΔR ≤ ±5%	
	R ≤ 100K	ΔR ≤ ±(3% + 0.05 ohm)	
Load Life		±(3%+0.05 ohm)	