

INTRODUCTION

The Carbon Film Resistors are highly reliable. These resistors are pyrolytically deposited and manufactured in streamlined automated assembly facilities under strict quality control procedures. The stable performance is achieved with the technology of film deposition onto a ceramic core with excellent thermal conductivity, mechanical strength and good electrical properties. Together with multi layers of epoxy coatings, the Carbon Film Resistors offer stability with long term reliability.

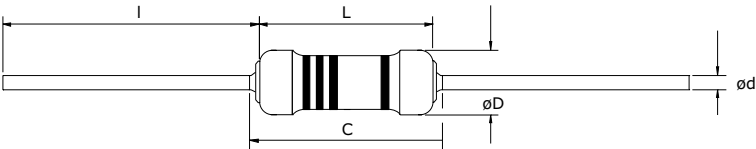
FEATURES

- Small size with high power ratings.
- Excellent long term stability.
- Wide Resistance Range.
- Lead Free

RATINGS

Type	CF 1/6	CF 1/4	CF1/4SS	CF 1/2	CF1/2SS	CF 1	CF 2
Power Rating @ 70°C	1/6W	1/4W	1/4W	1/2W	1/2W	1W	2W
Operating Temp. Range Derated to 0 Load at	-55°C to +155°C +155°C						
Maximum Working Voltage	200V	250V	250V	350V	350V	500V	500V
Maximum Overload Voltage	400V	500V	500V	700V	700V	700V	1000V
Resistance Range							
2%, E-24	10Ω-1MΩ	10Ω-1MΩ	10Ω-1MΩ	10Ω-1MΩ	10Ω-1MΩ	10Ω-1MΩ	10Ω-1MΩ
5%, E-24	1Ω-22MΩ	1Ω-22MΩ	1Ω-22MΩ	1Ω-22MΩ	1Ω-22MΩ	1Ω-22MΩ	1Ω-22MΩ

DIMENSIONS

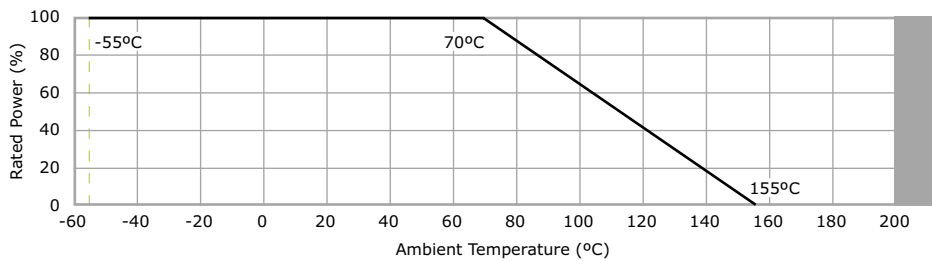


Type	DIMENSIONS (Millimeters)				
	L	C	D	l	d
CF1/6 / CF1/4SS	3.00± 0.4	3.5 Max	1.70± 0.2	28.0± 3.0	0.45± 0.05
CF1/4 / CF1/2SS	6.35± 0.5	7.1 Max	2.30± 0.3	28.0± 3.0	0.60± 0.05
CF1/2	9.00± 0.5	11.8 Max	3.20± 0.5	28.0± 3.0	0.60± 0.05
CF 1	12.00± 1.0	15.0 Max	4.50± 0.5	35.0± 3.0	0.80± 0.05
CF 2	16.00± 1.0	22.0 Max	5.00± 0.5	35.0± 3.0	0.80± 0.05

PERFORMANCE CHARACTERISTICS

Performance Test		Test Method	Specification
DC Resistance		MIL-STD-202F, Method 303	± 2%, ± 5% Tolerance
Resistance Temperature Coefficient 0.15≤100Ω >100Ω≤1KΩ >1KΩ≤100KΩ >100KΩ≤1MΩ >1MΩ≤5.1MΩ R>5.1MΩ		MIL-STD-202F, Method 304	±300ppm/°C -450 to +0ppm/°C -750 to +0ppm/°C -1000 to +0ppm/°C -1750 to +350ppm/°C -2200 to 350ppm/°C
Short Time Overload		MIL-R-55342E, Sect. 4.7.5	± (0.3% + 0.05Ω)
Dielectric Withstanding Voltage		MIL-STD-202F, Method 301	± (0.5% + 0.05Ω) No Mechanical Damage
Insulation Resistance		MIL-STD-202F, Method 302	>10³MΩ
Current Noise 1K >1K-10K >10K-100K >100K-910K >1M-2.2M >2.2M-5.1M >5.1M-10M		MIL-STD-202F, Method 308	<0.1μ v/v <0.2μ v/v <0.3μ v/v <0.6μ v/v <2μ v/v <3μ v/v <20μ v/v
Solderability		MIL-STD-202F, Method 208	>95% coverage
Resistance to Soldering Heat		MIL-R-55342E, Sect. 4.7.7	± (0.5% + 0.05Ω)
Robustness of electrode (Terminal Strength)		MIL-STD-202F, Method 211	± (0.5% + 0.05Ω) No Mechanical Damage
Resistance to Solvents		MIL-STD-202F, Method 215	No Damage to lacquer & colour coding
Moisture Resistance		MIL-STD-202F, Method 106	± (1.5% + 0.05Ω)
Temperature Cycling		MIL-STD-883F, Method 1010.7	± (1.0% + 0.05Ω)
Low Temperature Operation		MIL-R-55342E, Sect. 4.7.4	± (0.5% + 0.05Ω)
High Temperature Exposure		MIL-R-55342E, Sect. 4.7.6	± (1.0% + 0.05Ω)
Thermal Shock		MIL-STD-202F, Method 107	± (1.0% + 0.05Ω)
Loadlife	<100KΩ	MIL-STD-202F, Method 108	± (2.0% + 0.05Ω)
	≥ 100KΩ	MIL-STD-202F, Method 108	± (3.0% + 0.05Ω)

DERATING CURVE



ORDERING CODE

