

CF/CFM Series—Carbon Film Resistors

Features

- General purpose resistor ideal for commercial/industrial applications
- Flame retardant coatings standard, flameproof optional (contact factory)
- Panasert available on selected sizes (contact factory)
- Auto sequencing/insertion compatible
- CFM (mini) an ideal choice when size constraints apply
- Cut and formed product is available on select sizes; contact factory for details
- Standard lead wire for CF/CFM is copper plated steel, with 100% tin overplate
- 100% tin plate on copper wire is available as type CFQ/CFQM
- RoHS compliant / lead-free



Electrical Specifications

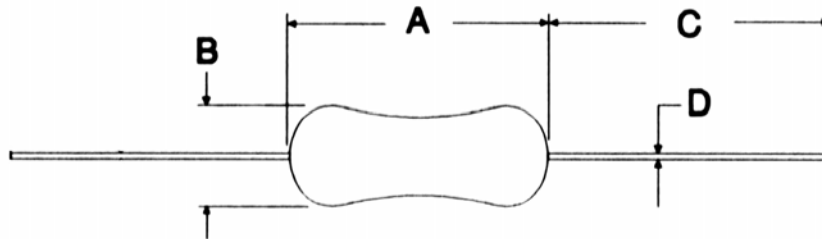
Type / Code	Power Rating (Watts) @ 70°C	Maximum Working Voltage*	Maximum Pulse Voltage	Dielectric Withstanding Voltage	Ohmic Range and Tolerance	
					2%	5%
CF 1/8	0.125W	250V	500V	300V	10Ω – 4.7MΩ	1Ω – 22MΩ
CF 1/4	0.250W	350V	600V	500V	1Ω – 4.7MΩ	1Ω – 22MΩ
CF 1/2	0.500W	350V	700V	700V	10Ω – 4.7MΩ	1Ω – 22MΩ
CF 1	1.000W	500V	1,000V	1,000V	1Ω – 10MΩ	1Ω – 22MΩ
CF 2	2.000W	500V	1,000V	1,000V	10Ω – 1MΩ	1Ω – 22MΩ
CFM 1/4	0.250W	250V	500V	500V	10Ω – 1MΩ	1Ω – 22MΩ
CFM 1/2	0.500W	350V	600V	500V	10Ω – 4.7MΩ	1Ω – 22MΩ

* Lesser of \sqrt{PR} or maximum working voltage.

How to Order

CF		1/2	4.7K	5%	R			
SEI Type		Code	Nominal Resistance	Tolerance	Packaging			
Type	Description	Code	Tolerance	Values	SEI Types	Qty	Description	Code
CF	EIA Standard	1/8	2%	E24	CF 1/8, CF 1/4, CF 1/2, CFM 1/4, CFM 1/2	5,000	Tape	R
CFM	Mini	1/4	5%	E24	CF 1	2,000		
PCF	Panasert CF 1/4	1/2			CF 2	1,000	Ammo	Q
PCFM	Panasert CFM 1/2	1			CF 1/4; CFM 1/2	2,000		
CFQ	Tin plating on copper wire	2			CF 1/8, CF 1/4, CFM 1/4, CFM 1/2	5,000		
CFQM	Tin plating on copper wire (mini)				CF 1/2	2,000		
					CF 1, CF 2	1,000		
					CF 1/4; CFM 1/2	5,000	Panasert	P
					All	1,000	Bulk	A

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Mechanical Specifications

Type / Code	A Body Length	B Body Diameter	C Lead Length (Bulk)	D Lead Diameter	Units
CF 1/8	0.13 + 0.01/-0 3.2 + 0.2/-0	0.07 ± 0.01 1.8 ± 0.2	1.10 ± 0.12 28.0 ± 3.0	0.018 ± 0.002 0.45 ± 0.05	inches mm
CF 1/4	0.26 ± 0.02 6.5 ± 0.5	0.09 ± 0.01 2.3 ± 0.2	1.10 ± 0.12 28.0 ± 3.0	0.022 ± 0.002 0.56 ± 0.05	inches mm
CF 1/2	0.33 ± 0.02 8.5 ± 0.50	0.11 ± 0.02 2.7 ± 0.5	1.10 ± 0.12 28.0 ± 3.0	0.024 ± 0.002 0.60 ± 0.05	inches mm
CF 1	0.43 ± 0.04 11.0 ± 1.0	0.18 ± 0.02 4.5 ± 0.5	1.18 ± 0.12 30.0 ± 3.0	0.031 ± 0.004 0.80 ± 0.1	inches mm
CF 2	0.59 ± 0.04 15.0 ± 1.0	0.20 ± 0.02 5.0 ± 0.5	1.18 ± 0.12 30.0 ± 3.0	0.031 ± 0.004 0.80 ± 0.1	inches mm
CFM 1/4	0.13 + 0.01/-0 3.2 + 0.2/-0	0.07 ± 0.01 1.8 ± 0.2	1.10 ± 0.12 28.0 ± 3.0	0.018 ± 0.002 0.45 ± 0.05	inches mm
CFM 1/2	0.26 ± 0.02 6.5 ± 0.5	0.09 ± 0.01 2.3 ± 0.2	1.10 ± 0.12 28.0 ± 3.0	0.022 ± 0.002 0.56 ± 0.05	inches mm

Performance Characteristics

Test	Standard / Method	Requirement
Short Time Overload	EIA-RS-172-B 3.2.6	± 0.5%
Resistance to Solder Heat	MIL-STD 202, Method 210	± 0.5%
Dielectric Withstanding Voltage	JIS C 5202 5.6	± 0.5%
Load Life	MIL-STD 202, Method 108	± 1.0%
Terminal Strength	MIL-STD 202, Method 211	± 0.2%
Moisture Resistance	MIL-STD 202, Method 106	± 0.5%

Operating Temp Range : -55°C to +155°C