

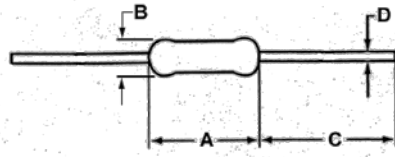
- Features:**
- General purpose resistor ideal for commercial/industrial applications
 - Flame retardant coatings standard
 - Flameproof version available as CFF
 - Panasert available on selected sizes; contact factory
 - Auto sequencing/insertion compatible
 - CFM (mini) ideal choice when size constraints apply
 - Cut and formed product is available on select sizes; contact factory
 - Standard lead wire for CF/CFM is copper plated steel, with 100% tin over plate
 - 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 (1)	Maximum Overload Voltage	Dielectric Withstanding Voltage	Resistance Temperature Coefficient per Ohmic Range	Ohmic Range (Ω) and Tolerance	
						2%	5%
CF18	0.125W	250V	500V	350V	$<10\Omega = \pm 400\text{ppm}/^\circ\text{C}$ $10\Omega \text{ to } 9.99\text{K}\Omega = 0 \sim -400\text{ppm}/^\circ\text{C}$ $10\text{K}\Omega \text{ to } 99\text{K}\Omega = 0 \sim -500\text{ppm}/^\circ\text{C}$ $100\text{K}\Omega \text{ to } 999\text{K}\Omega = 0 \sim -850\text{ppm}/^\circ\text{C}$ $1\text{M}\Omega \text{ and above} = 0 \sim -1500\text{ppm}/^\circ\text{C}$	10 - 1M	1 - 22M
CF14	0.25W	350V	600V	350V		1 - 1M	1 - 22M
CF12	0.5W	350V	700V	600V		10 - 1M	1 - 22M
CF1	1W	500V	1,000V	600V		1 - 1M	1 - 10M
CF2	2W	500V	1,000V	600V		10 - 1M	1 - 10M
CFM14	0.25W	250V	500V	350V		10 - 1M	1 - 10M
CFM12	0.5W	350V	600V	350V		10 - 1M	1 - 10M
CFM1	1W	600V	1,000V	600V		10 - 1M	1 - 10M

(1) Lesser of $\sqrt{\text{PR}}$ or maximum working voltage.



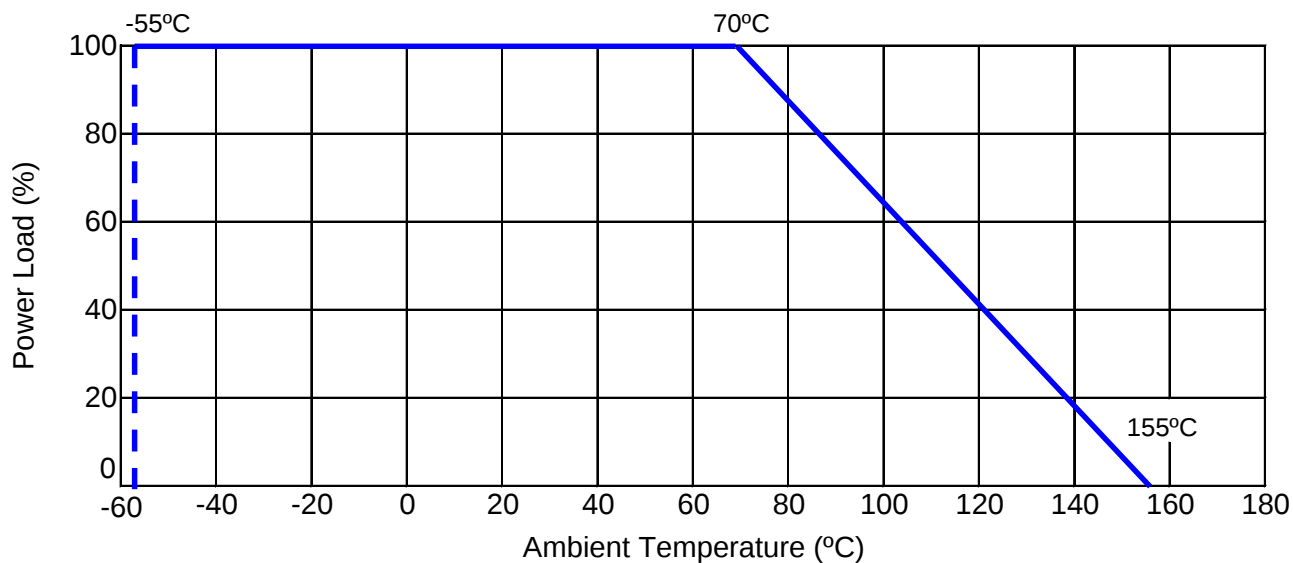
Mechanical Specifications

Type / Code	A Body Length	B Body Diameter	C Lead Length(Bulk)	D Lead Diameter	Unit
CF18	0.130 ± 0.012	0.067 ± 0.012	1.102 ± 0.118	0.018 ± 0.003	inches
	3.30 ± 0.30	1.70 ± 0.30	28.00 ± 3.00	0.45 ± 0.08	mm
CF14	0.236 ± 0.012	0.091 ± 0.012	1.102 ± 0.118	0.022 ± 0.003	inches
	6.00 ± 0.30	2.30 ± 0.30	28.00 ± 3.00	0.55 ± 0.08	mm
CF12	0.335 ± 0.039	0.106 ± 0.020	1.102 ± 0.118	0.028 ± 0.002	inches
	8.50 ± 1.00	2.70 ± 0.50	28.00 ± 3.00	0.70 ± 0.05	mm
CF1	0.433 ± 0.039	0.177 ± 0.020	1.181 ± 0.118	0.028 ± 0.002	inches
	11.00 ± 1.00	4.50 ± 0.50	30.00 ± 3.00	0.70 ± 0.05	mm
CF2	0.591 ± 0.039	0.197 ± 0.020	1.339 ± 0.157	0.028 ± 0.002	inches
	15.00 ± 1.00	5.00 ± 0.50	34.00 ± 4.00	0.70 ± 0.05	mm
CFM14	0.130 ± 0.012	0.067 ± 0.012	1.102 ± 0.118	0.018 ± 0.003	inches
	3.30 ± 0.30	1.70 ± 0.30	28.00 ± 3.00	0.45 ± 0.08	mm
CFM12	0.236 ± 0.012	0.091 ± 0.012	1.102 ± 0.118	0.022 ± 0.003	inches
	6.00 ± 0.30	2.30 ± 0.30	28.00 ± 3.00	0.55 ± 0.08	mm
CFM1	0.354 ± 0.020	0.138 ± 0.020	1.102 ± 0.118	0.028 ± 0.002	inches
	9.00 ± 0.50	3.50 ± 0.50	28.00 ± 3.00	0.70 ± 0.05	mm

Performance Characteristics		
Test	Standard / Method	Test Results
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%
Terminal Strength	MIL-STD 202 Method 211	± 0.2%
Moisture Resistance	MIL-STD 202 Method 106	± 0.5%

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

Power Derating Curve:



How to Order

1	2	3	4	5	6	7	8	9	10
C	F	1	2	J	T	1	0	0	K

Product Series	Size	Power Rating	Tolerance	Code	Description	Size	Quantity	Resistance Value
CF	Standard	18 0.125W	Code Tol	B	Bulk	CF18, CFM14, CF14, CFM12	1,000	Four characters with the multiplier used as the decimal holder. 10 ohm = 10R0 10.2 Kohm = 10K2 1 Mohm = 1M00
CFF	Flameproof	14 0.25W	G 2%	T	Tape and Reel	CF12, CFM1, CF1, CF2	5,000	
CFM	Mini	12 0.5W	J 5%			CF18, CFM14, CF14, CFM12, CF12, PCF14, PCFM12	2,500	
PCF	Panasert CF14	1 1W				CFM1	2,000	
PCFM	Panasert CF12	2 2W		A	Ammo	CF2	1,000	
CFQ	Tin plating on copper wire					CF18, CFM14, CF14, CFM12	5,000	
CFQM	Tin plating (mini)					CF12, CFM1, PCF14, PCFM12	2,000	
PCFQ	Tin plating on copper wire Panasert					CF1, CF2	1,000	

Legacy Part Number (before January 3, 2011):

SEI Type	Code	Nominal Resistance	Tolerance	Packaging
CF	1/2	100K	5%	R

Code	Description	Code	Wattage	Tolerance
CF	Standard	1/8	0.125W	2%
CFF	Flameproof	1/4	0.25W	5%
CFM	Mini	1/2	0.5W	
PCF	Panasert CF 1/4	1	1W	
PCFM	Panasert CF 1/2	2	2W	
CFQ	Tin plating on copper wire			
CFQM	Tin plating (mini)			
PCFQ	Tin plating on copper wire Panasert			

Code →	A	R	T
SEI Types	Bulk	Tape & Reel	Tape & Box (Ammo Box)
CF 1/8	1,000	5,000	5,000
CFM 1/4			
CF 1/4			
CFM 1/2			
CF 1/2	1,000	5,000	2,000
CFM 1	1,000	2,500	2,000
CF 1	1,000	2,000	1,000
CF 2	1,000	1,000	1,000
PCF 1/4	N/A	5,000	2,000
PCFM 1/2			