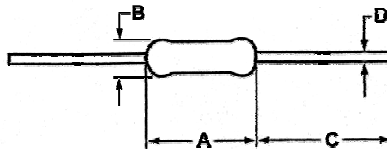


- Features:
- General purpose resistor ideal for commercial/industrial applications
  - Flame retardant coatings standard
  - Flameproof version available as CFF
  - Panasert available on selected sizes; contact factory
  - Auto sequencing/insertion compatible
  - CFM (mini) ideal choice when size constraints 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	<10Ω = ±400ppm/°C 10Ω to 9.99KΩ = 0 ~ -400ppm/°C 10KΩ to 99KΩ = 0 ~ -500ppm/°C 100KΩ to 999KΩ = 0 ~ -850ppm/°C 1MΩ and above = 0 ~ -1500ppm/°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  $\sqrt{PR}$  or maximum working voltage.

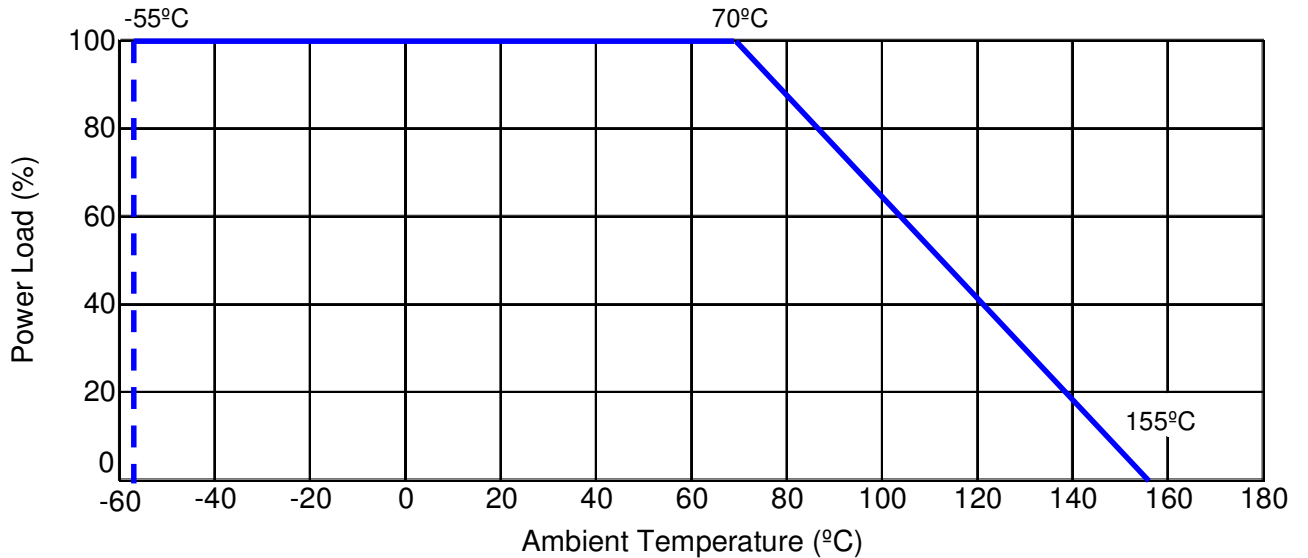


Mechanical Specifications					
Type / Code	A Body Length	B Body Diameter	C Lead Length(Bulk)	D Lead Diameter	Unit
CF18	0.130 ± 0.012	0.067 ± 0.012	1.102 ± 0.118	0.018 ± 0.003	inches
	3.30 ± 0.30	1.70 ± 0.30	28.00 ± 3.00	0.45 ± 0.08	mm
CF14	0.256 ± 0.020	0.091 ± 0.012	1.102 ± 0.118	0.022 ± 0.003	inches
	6.50 ± 0.50	2.30 ± 0.30	28.00 ± 3.00	0.55 ± 0.08	mm
CF12	0.335 ± 0.039	0.106 ± 0.020	1.181 ± 0.118	0.022 ± 0.002	inches
	8.50 ± 1.00	2.70 ± 0.50	30.00 ± 3.00	0.56 ± 0.05	mm
CF1	0.433 ± 0.039	0.177 ± 0.020	1.181 ± 0.118	0.028 ± 0.004	inches
	11.00 ± 1.00	4.50 ± 0.50	30.00 ± 3.00	0.70 ± 0.10	mm
CF2	0.591 ± 0.039	0.197 ± 0.020	1.339 ± 0.157	0.031 ± 0.004	inches
	15.00 ± 1.00	5.00 ± 0.50	34.00 ± 4.00	0.80 ± 0.10	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	0.256 ± 0.039	0.091 ± 0.012	1.102 ± 0.118	0.022 ± 0.003	inches
	6.50 ± 1.00	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	0.024 ± 0.002	inches
	9.00 ± 0.50	3.50 ± 0.50	28.00 ± 3.00	0.60 ± 0.05	mm

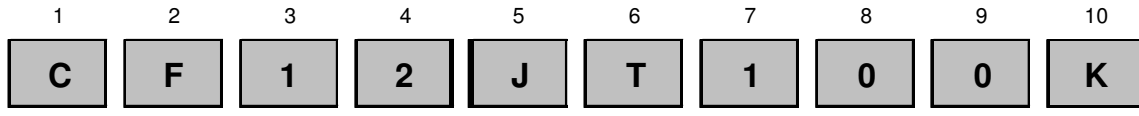
Performance Characteristics		
Test	Standard / Method	Test Results
Short Time Overload	EIA-RS-172-B 3.2.6	± 0.5%
Resistance to Solder Heat	MIL-STD 202 Method 210	± 0.5%
Dielectric Withstanding Voltage	JIS C 5202 5.6	± 0.5%
Load Life	MIL-STD 202 Method 108	± 1%
Terminal Strength	MIL-STD 202 Method 211	± 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**



Product Series	Size	Power Rating
CF	Standard	18 0.125W
CFF	Flameproof	14 0.25W
CFM	Mini	12 0.5W
PCF	Panasert CF14	1 1W
PCFM	Panasert CF12	2 2W
CFQ	Tin plating on copper wire	
CFQM	Tin plating (mini)	
PCFQ	Tin plating on copper wire Panasert	

Tolerance	Code	Tol
G		2%
J		5%

Code	Description	Size	Quantity	Resistance Value
B	Bulk	CF18, CFM14, CF14, CFM12 CF12, CFM1, CF1, CF2	1,000	Four characters with the multiplier used as the decimal holder.  10 ohm = 10R0 10.2 Kohm = 10K2 1 Mohm = 1M00
T	Tape and Reel	CF18, CFM14, CF14, CFM12, CF12, PCF14, PCFM12	5,000	
		CFM1	2,500	
		CF1	2,000	
		CF2	1,000	
A	Ammo	CF18, CFM14, CF14, CFM12	5,000	
		CF12, CFM1, PCF14, PCFM12	2,000	
		CF1, CF2	1,000	

Legacy Part Number (before January 3, 2011):

SEI Type	Code	Nominal Resistance	Tolerance	Packaging
<b>CF</b>	<b>1/2</b>	<b>100K</b>	<b>5%</b>	<b>R</b>
Code	Description	Code	Wattage	Code →
CF	Standard	1/8	0.125W	A
CFF	Flameproof	1/4	0.25W	R
CFM	Mini	1/2	0.5W	T
PCF	Panasert CF 1/4	1	1W	Tape & Box (Ammo Box)
PCFM	Panasert CF 1/2	2	2W	
CFQ	Tin plating on copper wire			
CFQM	Tin plating (mini)			
PCFQ	Tin plating on copper wire Panasert			
				Tolerance
				2%
				5%
				SEI Types
				Bulk
				Tape & Reel
				CF 1/8
				CFM 1/4
				CF 1/4
				CFM 1/2
				CF 1/2
				CFM 1
				CF 1
				CF 2
				PCF 1/4
				PCFM 1/2