

- 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 | Ohmic Range (Ω) and Tolerance | |
| | | | | | 2% | 5% |
| CF 1/8 | 0.125W | 250V | 500V | 350V | 10 - 1M | 1 - 22M |
| CF 1/4 | 0.25W | 350V | 600V | 350V | 1 - 1M | 1 - 22M |
| CF 1/2 | 0.5W | 350V | 700V | 600V | 10 - 1M | 1 - 10M |
| CF 1 | 1W | 500V | 1,000V | 600V | 1 - 1M | 1 - 10M |
| CF 2 | 2W | 500V | 1,000V | 600V | 10 - 1M | 1 - 10M |
| CFM 1/4 | 0.25W | 250V | 500V | 350V | 10 - 1M | 1 - 10M |
| CFM 1/2 | 0.5W | 350V | 600V | 350V | 10 - 1M | 1 - 10M |
| CFM 1 | 1W | 600V | 1,000V | 600V | 10 - 1M | 1 - 10M |

(1) Lesser of √PR or maximum working voltage.



| 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 | 0.07 ± 0.01 | 1.10 ± 0.12 | 0.018 ± 0.003 | inches |
| | 3.3 ± 0.3 | 1.7 ± 0.3 | 28.0 ± 3.0 | 0.45 ± 0.08 | mm |
| CF 1/4 | 0.26 ± 0.02 | 0.09 ± 0.01 | 1.10 ± 0.12 | 0.022 ± 0.003 | inches |
| | 6.5 ± 0.05 | 2.3 ± 0.3 | 28.0 ± 3.0 | 0.55 ± 0.08 | mm |
| CF 1/2 | 0.33 ± 0.04 | 0.11 ± 0.02 | 1.18 ± 0.12 | 0.022 ± 0.002 | inches |
| | 8.5 ± 1.0 | 2.7 ± 0.5 | 30.0 ± 3.0 | 0.56 ± 0.05 | mm |
| CF 1 | 0.43 ± 0.04 | 0.18 ± 0.02 | 1.18 ± 0.12 | 0.028 ± 0.004 | inches |
| | 11.0 ± 1.0 | 4.5 ± 0.5 | 30.0 ± 3.0 | 0.70 ± 0.1 | mm |
| CF 2 | 0.59 ± 0.04 | 0.20 ± 0.02 | 1.18 ± 0.12 | 0.031 ± 0.004 | inches |
| | 15.0 ± 1.0 | 5.0 ± 0.5 | 30.0 ± 3.0 | 0.8 ± 0.1 | mm |
| CFM 1/4 | 0.13 ± 0.01 | 0.07 ± 0.01 | 1.10 ± 0.12 | 0.018 ± 0.003 | inches |
| | 3.3 ± 0.3 | 1.7 ± 0.3 | 28.0 ± 3.0 | 0.45 ± 0.08 | mm |
| CFM 1/2 | 0.26 ± 0.04 | 0.09 ± 0.01 | 1.10 ± 0.12 | 0.022 ± 0.003 | inches |
| | 6.5 ± 1.0 | 2.3 ± 0.3 | 28.0 ± 3.0 | 0.55 ± 0.08 | mm |
| CFM 1 | 0.35 ± 0.02 | 0.14 ± 0.02 | 1.10 ± 0.12 | 0.024 ± 0.002 | inches |
| | 9.0 ± 0.5 | 3.5 ± 0.5 | 28.0 ± 3.0 | 0.6 ± 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

How to Order

| SEI Type | | Code | | Nominal Resistance | Tolerance | Packaging | | | |
|----------|-------------------------------------|------|---------|--------------------|-----------|-----------|-------|-------------|-----------------------|
| CF | | 1/2 | | 100K | 5% | R | | | |
| Code | Description | Code | Wattage | | Tolerance | Code → | A | R | T |
| CF | Standard | 1/8 | 0.125W | | 2% | SEI Types | Bulk | Tape & Reel | Tape & Box (Ammo Box) |
| CFM | Mini | 1/2 | 0.5W | | 5% | CF 1/8 | 1,000 | 5,000 | 5,000 |
| CFQ | Tin plating on copper wire | 1 | 1W | | | CFM 1/4 | | | |
| CFQM | Tin plating (mini) | 2 | 2W | | | CF 1/4 | | | |
| PCF | Panasert CF 1/4 | | | | | CFM 1/2 | | | |
| PCFM | Panasert CF 1/2 | | | | | CF 1/2 | 1,000 | 5,000 | 2,000 |
| PCFQ | Tin plating on copper wire Panasert | | | | | CFM 1 | 1,000 | 5,000 | 5,000 |
| | | | | | | 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 | | | |

New part number format starting January 3rd, 2011:

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 | | | | | | | | | |
| CFM | Mini | 12 | 0.5W | G | 2% | T | tape and reel | CF12, CFM1, CF1, CF2 | 5,000 | | | | | | | | | | |
| CFQ | Tin plating on copper wire | 1 | 1W | J | 5% | | | CF18, CFM14, CF14, CFM12, CF12, CFM1, PCF14, PCFM12 | 2,000 | | | | | | | | | | |
| CFQM | Tin plating (mini) | 2 | 2W | | | | | CF1 | 2,000 | | | | | | | | | | |
| PCF | Panasert CF14 | | | | | | | CF2 | 1,000 | | | | | | | | | | |
| PCFM | Panasert CF12 | | | | | A | ammo | CF18, CFM14, CF14, CFM12, CFM1 | 5,000 | | | | | | | | | | |
| PCFQ | Tin plating on copper wire Panasert | | | | | | | CF12, PCF14, PCFM12 | 2,000 | | | | | | | | | | |
| | | | | | | | | CF1, CF2 | 1,000 | | | | | | | | | | |