

Carbon Film Fixed Resistors:

Feature

- High quality performance
- Great economy
- Flame retardant type available
- Automatically insertable



Specifications

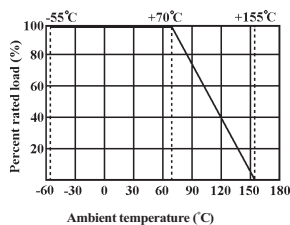
| Part No. | Type | Power Rating At 70°C | Dimension (mm) | | | | Max. Working Voltage | Max. Overload Voltage | Dielectric Withstanding Voltage | Resistance Range |
|--------------------|---------|----------------------|----------------|--------|------------------|-------|----------------------|-----------------------|---------------------------------|------------------|
| | | | D Max. | L Max. | d +0.02 -0.05 | H ± 3 | | | | |
| Normal Size | | | | | | | | | | |
| CFR0W8 | CFR-12 | 1/8W | 1.85 | 3.5 | 0.5 | 28 | 200V | 400V | 400V | 1Ω ~ 1MΩ |
| CFR0W4 | CFR-25 | 1/4W | 2.5 | 6.8 | 0.6 | 28 | 250V | 500V | 500V | 1Ω ~ 10MΩ |
| CFR0W2 | CFR-50 | 1/2W | 3.5 | 10 | 0.6 | 28 | 350V | 700V | 700V | 1Ω ~ 10MΩ |
| CFR01W | CFR-100 | 1W | 5.5 | 16 | 0.8 | 28 | 500V | 1000V | 1000V | 1Ω ~ 10MΩ |
| CFR02W | CFR-200 | 2W | 6.5 | 17.5 | 0.8 | 28 | 500V | 1000V | 1000V | 1Ω ~ 10MΩ |

Small Size & Extra Small Size

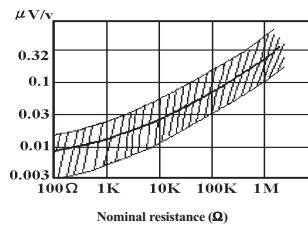
| | | | | | | | | | | |
|--------|-----------|------|------|------|-----|----|------|-------|-------|-----------|
| CFR0S4 | CFR-25-S | 1/4W | 1.85 | 3.5 | 0.5 | 28 | 200V | 400V | 400V | 1Ω ~ 1MΩ |
| CFR0U2 | CFR-50-SS | 1/2W | 2.5 | 6.8 | 0.6 | 28 | 250V | 500V | 250V | 1Ω ~ 10MΩ |
| CFR0S2 | CFR-50-S | 1/2W | 3 | 9 | 0.6 | 28 | 350V | 700V | 700V | 1Ω ~ 10MΩ |
| CFR01S | CFR-100-S | 1W | 5 | 12 | 0.7 | 28 | 500V | 1000V | 1000V | 1Ω ~ 10MΩ |
| CFR02S | CFR-200-S | 2W | 5.5 | 16 | 0.8 | 28 | 500V | 1000V | 1000V | 1Ω ~ 10MΩ |
| CFR03S | CFR-300-S | 3W | 6.5 | 17.5 | 0.8 | 28 | 500V | 1000V | 1000V | 1Ω ~ 10MΩ |

- Standard E-24 series values in ± 5% tolerance
- Standard Beige base color; Special Lavender base color for CFR01S, CFR02S & CFR03S
- Standard Grayish-green base color (Non-Flammable coating) for CFR0U2 (CFR-50-SS)
- For any special inquiry which including too low or high ohmic values is available on a case to case basis

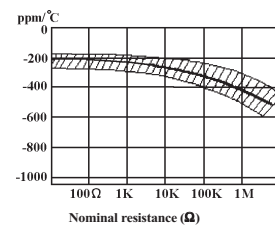
Derating Curve



Current Noise Level



Temperature Coefficient



Carbon Film Fixed Resistors:

Performance Specifications

| | |
|--|--|
| Temperature coefficient | ±300PPM/°C for ≤10Ω; ±450PPM/°C for 11Ω ~ 99KΩ; 0 ~ -700PPM/°C for 100KΩ ~1MΩ; 0 ~ -1500PPM/°C for 1.1MΩ ~10MΩ. |
| Short-time overload | ΔR/R ≤ ±(1%+0.05Ω), with no evidence of mechanical damage. |
| Insulation resistance | Min. 10,000Mega Ohm. |
| Dielectric withstanding voltage | No evidence of flashover, mechanical damage, arcing or insulation breakdown. |
| Terminal strength | No evidence of mechanical damage. |
| Resistance to Soldering heat | ΔR/R ≤ ±(1%+0.05Ω), with no evidence of mechanical damage. |
| Solderability | Min. 95% coverage. |
| Resistance to solvent | No deterioration of protective coating and markings. |
| Temperature cycling | ΔR/R ≤ ±(1%+0.05Ω), with no evidence of mechanical damage. |
| Load life in humidity | Normal type: ΔR/R ± 3% for <100KΩ, ±5% for ≥100KΩ; Flame retardant type: ΔR/R ± 5% for <100KΩ, ±10% for ≥100KΩ |
| Load life | Normal type: ΔR/R ±2% for <56KΩ, ±3% for ≥56KΩ; Flame retardant type: ΔR/R ±5% for <100KΩ, ±10% for ≥100KΩ |

Ordering Procedure (Example: CFR 1/4W Small Size Non – Flame 5% 10KΩ T/B-5000)

Special Features:

0 = Standard product, F = Flame Retardant, I = Non - Inductive

Wattage: Normal size: W8 = 1/8W, W4 = 1/4W, W2 = 1/2W, 1W = 1W, 2W = 2W
Small size: S4 = 1/4W-S, S2 = 1/2W-S, 1S = 1W-S, 2S = 2W-S, 3S = 3W-S
Extra small size: U2 = 1/2W-SS

Tolerance: G = ± 2% , J = ± 5% , K = ± 10%

Packing Type: A = Tape/Box, T = Tape/Reel, B = Bulk/Box,
P = Tape/Box of PT-26 product

Resistance Value:

E-24 series:
The 1st digit will be "0";
the 2nd & 3rd digits are
for the significant figures
of the resistance and the
4th digit indicate the
numbers of zeros
following

Packing Quantity:

1 = 1,000pcs, 2 = 2,000pcs, 3 = 3,000pcs, 4 = 4,000pcs
5 = 5,000pcs, A = 500pcs, B = 2,500pcs,
0 = for Bulk/Box packing

Additional Information: 0 = NIL

Product Type:
CFR = Carbon Film
Fixed Resistors

C F R F S 4 J 0 1 0 3 A 5 0