

Feature

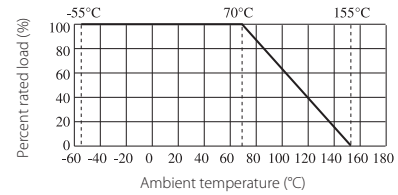
- High quality performance
- Great economy
- Flame Retardant available
- Automatically insertable



Dimension (mm)



Derating Curve



Specification

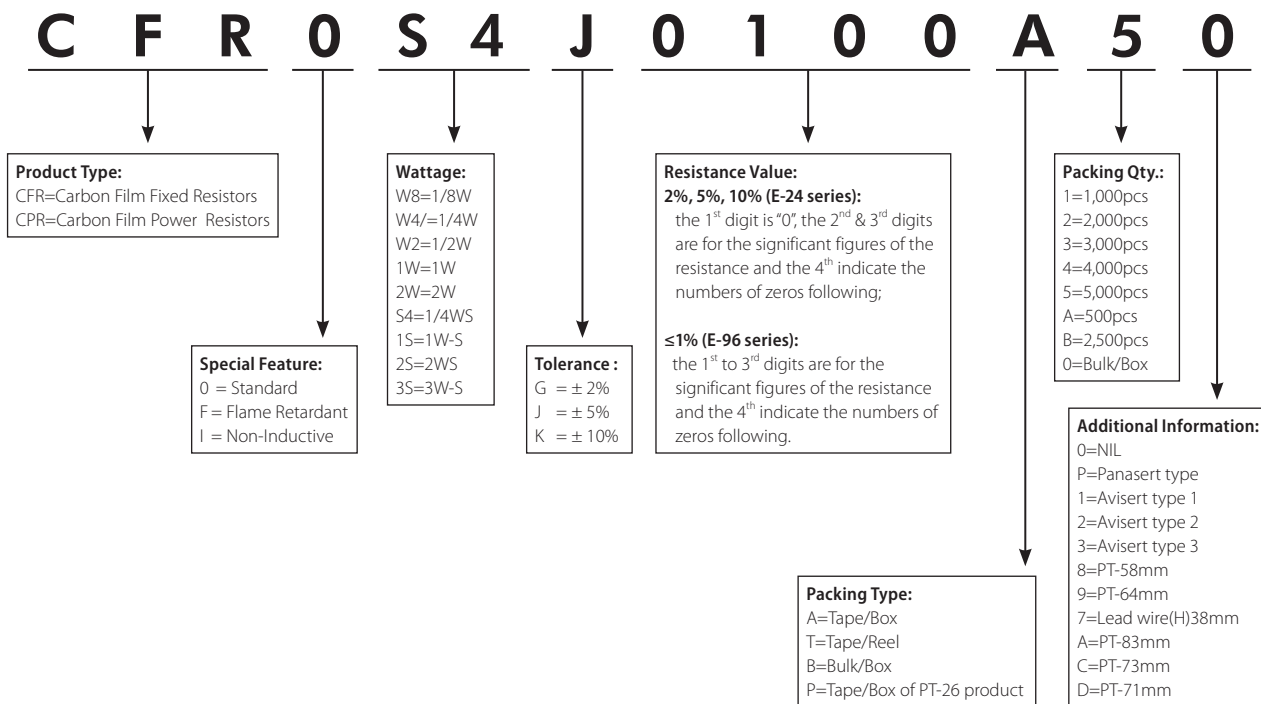
| Part No | Type | Power Rating 70 °C | Dimension (mm) | | | | | MAX. Working Voltage | MAX. Overload Voltage | Dielectric Withstanding Voltage | Resistance Range | Tolerance |
|----------------------------|-----------|-----------------------|----------------|----------|--------|-----|----|----------------------------|-----------------------------|---------------------------------------|---------------------|-----------|
| | | | D | L | d±0.05 | H±3 | PT | | | | | |
| Ordinary Products | | | | | | | | | | | | |
| CFR0W8 | CFR-12 | 1/8W | 1.9±0.3 | 3.3±0.3 | 0.45 | 28 | 52 | 200V | 400V | 400V | 1Ω~1MΩ | |
| CFR0S4 | CFR-25-S | 1/4W-S | 1.9±0.3 | 3.3±0.3 | 0.45 | 28 | 52 | 200V | 400V | 400V | 1Ω~1MΩ | |
| CFR0W4 | CFR-25 | 1/4W | 2.2±0.3 | 6.5±1.0 | 0.54 | 28 | 52 | 250V | 500V | 500V | 1Ω~10MΩ | |
| CFR0W2 | CFR-50 | 1/2W | 3.0±0.6 | 9.5±1.0 | 0.54 | 28 | 52 | 350V | 700V | 700V | 1Ω~10MΩ | |
| CFR01S | CFR-100-S | 1W-S | 4.5±0.6 | 11.5±1.0 | 0.70 | 25 | 52 | 500V | 1000V | 1000V | 1Ω~10MΩ | ±2% |
| CFR01W | CFR-100 | 1W | 5.0±0.6 | 15.5±1.0 | 0.70 | 28 | 64 | 500V | 1000V | 1000V | 1Ω~10MΩ | ±5% |
| CFR02S | CFR-200-S | 2W-S | 5.0±0.6 | 15.5±1.0 | 0.70 | 28 | 64 | 500V | 1000V | 1000V | 1Ω~10MΩ | ±10% |
| CFR02W | CFR-200 | 2W | 6.0±0.6 | 17.5±1.0 | 0.75 | 28 | 64 | 500V | 1000V | 1000V | 1Ω~10MΩ | |
| CFR03S | CFR-300-S | 3W-S | 6.0±0.6 | 17.5±1.0 | 0.75 | 28 | 64 | 500V | 1000V | 1000V | 1Ω~10MΩ | |
| High Power Products | | | | | | | | | | | | |
| CPR0W2 | CPR-50 | 1/2W | 2.2±0.5 | 6.5±1.0 | 0.54 | 28 | 52 | 300V | 500V | 700V | 3Ω~10MΩ | ±2% |
| CPR01W | CPR-100 | 1W | 3.5±0.5 | 9.5±1.0 | 0.54 | 28 | 52 | 500V | 700V | 1000V | 3Ω~10MΩ | ±5% |
| CPR02W | CPR-200 | 2W | 4.5±0.5 | 11.0±1.0 | 0.70 | 25 | 52 | 500V | 1000V | 1000V | 3Ω~10MΩ | ±10% |

- Standard E-24 series values in ±5% ±10% & ±20% tolerance
- Standard: Beige color, CFR1WS, CFR2WS, CFR3WS with light brown color, High Power Products with Grey-green
- For any special inquiry such as too Low or too High ohmic values is available case by case.

Performance Specification

| | |
|--|--|
| Temperature coefficient | $\leq 10 \Omega$: $\pm 300 \text{PPM}/^\circ\text{C}$ $11 \Omega \sim 99 \text{k}\Omega$: $\pm 450 \text{PPM}/^\circ\text{C}$ $100 \text{k}\Omega \sim 1 \text{M}\Omega$: $0 \sim 700 \text{PPM}/^\circ\text{C}$ $1.1 \text{M}\Omega \sim 10 \text{M}\Omega$: $0 \sim 1500 \text{PPM}/^\circ\text{C}$ |
| Short-time Overload | CFR Products: $\Delta R/R \leq \pm(1\%+0.05 \Omega)$ CPR Products: $\Delta R/R \leq \pm(0.75\%+0.05 \Omega)$ |
| Dielectric withstanding voltage | With no evidence of flashover, mechanical damage, arcing or insulation breakdown |
| Terminal strength | No evidence of mechanical damage |
| Soldering heat | $\Delta R/R \leq \pm(1\%+0.05 \Omega)$ with no evidence of mechanical damage |
| Solderability | Coverage must be over 95%. |
| Resistance to solvent | No deterioration of protective coating and markings |
| Rapid change of temperature | $\Delta R/R \leq \pm(1\%+0.05 \Omega)$ with no evidence of mechanical damage |
| Load life in humidity | CFR Ordinary Products: $\Delta R/R \pm 3\%$ for $< 100 \text{k}\Omega$, $\pm 5\%$ for $\geq 100 \text{k}\Omega$ CFR Flame retardant type: $\Delta R/R \pm 5\%$ for $< 100 \text{k}\Omega$, $\pm 10\%$ for $\geq 100 \text{k}\Omega$ High Power Products: $\Delta R/R \pm (3\%+0.05 \Omega)$ |
| Load life | CFR Ordinary Products: $\Delta R/R \pm 2\%$ for $< 56 \text{k}\Omega$, $\pm 3\%$ for $\geq 56 \text{k}\Omega$ CFR Flame retardant type: $\Delta R/R \pm 5\%$ for $< 100 \text{k}\Omega$, $\pm 10\%$ for $\geq 100 \text{k}\Omega$ High Power Products: $\Delta R/R \pm (3\%+0.05 \Omega)$ |

Ordering Procedure (Example: CFR 1/4WS 5% 10 Ω T/B-5000)



Remark: For more details, please check page 135, Part No. System