

HIGH VOLTAGE, HIGH VALUE CARBON RESISTORS

CFZ SERIES 1/8 - 3 Watt



RESISTOR



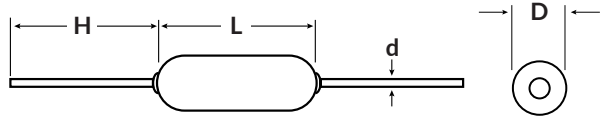
FEATURES

- ▶ High pulse voltage capability
- ▶ Standard resistance range: 20Ω - 10M (extended range available)
- ▶ Low inductance

OPTIONS

- ▶ **Opt. 25:** Hot solder dipped leads
- ▶ **Opt. 37:** Group A screening per MIL-R-39008
- ▶ **Other:** Custom marking, uninsulated, specialty non-inductive/high frequency design, cut & formed leads, & numerous other options.

Type CFZ was developed as a lower-cost alternative to high voltage thick film and carbon composition resistors. Carbonized film processing enables pulse capabilities to 12KV! Elements are protected by moisture resistant epoxy coating for excellent environmental performance. Application assistance available.



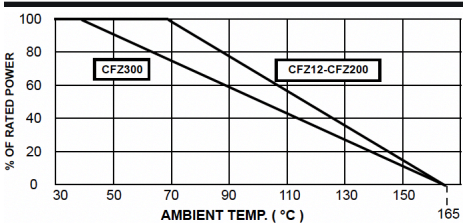
RCD TYPE	WATTAGE RATING (W)	MAX WORKING VOLTAGE (V)	PEAK PULSE VOLTAGE (KV)	DIMENSIONS in [mm]			
				L	D	±0.004 [0.10]	H ³
CFZ12	0.125	250	2	0.145±0.032 [3.68±0.80]	0.062±0.020 [1.57±0.51]	0.020 [0.50]	1.06±0.080 [27±2]
CFZ25	0.25	300	3	0.250±0.032 [6.35±0.80]	0.090±0.020 [2.29±0.51]	0.024 [0.60]	1.06±0.080 [27±2]
CFZ50S	0.50	400	5	0.354±0.032 [8.99±0.80]	0.125±0.020 [3.18±0.51]	0.024 [0.60]	1.00±0.080 [25.4±2]
CFZ75	0.75	500	6	0.354±0.032 [8.99±0.80]	0.148±0.020 [3.76±0.51]	0.028 [0.70]	0.980 [25] MIN
CFZ100	1.0	600	7	0.470±0.050 [11.9±1.3]	0.180±0.025 [4.57±0.64]	0.030 [0.75]	1.06 [27] MIN
CFZ200	2.0	700	10	0.600±0.050 [15.2±1.3]	0.200±0.025 [5.08±0.64]	0.030 [0.75]	1.06 [27] MIN
CFZ300	3.0	800	12	0.710±0.080 [18.0±2.0]	0.250±0.050 [6.35±1.27]	0.030 [0.75]	1.26 [32] MIN

¹ Max working voltage determined by E = (PR)^{1/2}, E not to exceed value listed in column above. Increased voltage ratings available.

² Peak pulse voltage is highly dependent on pulse waveform and resistance value. Voltage levels given indicate the maximum standard levels for the series (increased peak voltage levels available). The peak voltage levels are not attainable on all values and pulse waveforms, consult factory for application assistance.

³ Lead length is for bulk packaged parts, taped parts may be shorter. Non-standard lengths and cut & formed leads available.

DERATING



RCD CFZ12 through CFZ200 power ratings must be derated above 70°C, derate CFZ300 above 40°C.

TYPICAL PERFORMANCE

Load Life (1000 hours)	±3%
Shelf Life @ 25°C (1 year)	±1%
Effect of Solder	±0.30%
Moisture Resistance	±2%
Short-Time Overload	±1%
Temperature Cycling	±0.50%
Insulation Resistance (MΩ MIN)	10,000

SPECIFICATIONS

Resistance Range	20Ω - 10M *
Standard Tolerance	±5% (±2%, ±10% available)
Operating Temperature Range	-55°C to +155°C
Dielectric Strength	CFZ12: 400V CFZ25 - CFZ75: 500V CFZ100 - CFZ300: 600V
Temperature Coefficient TYP	20Ω - 100K 110K - 1M 1.1M - 10M 20Ω - 100K 100K - 1M 1.1M - 10M CFZ12: 50S, 350-500PPM CFZ12: 50S, 750PPM CFZ12: 50S, 1500PPM CFZ100-CFZ200: 350PPM CFZ100-CFZ200: 500PPM CFZ100-CFZ200: 1000PPM

* Resistance range for CFZ25 - CFZ200, consult factory for other information.

PART NUMBER DERIVATION

