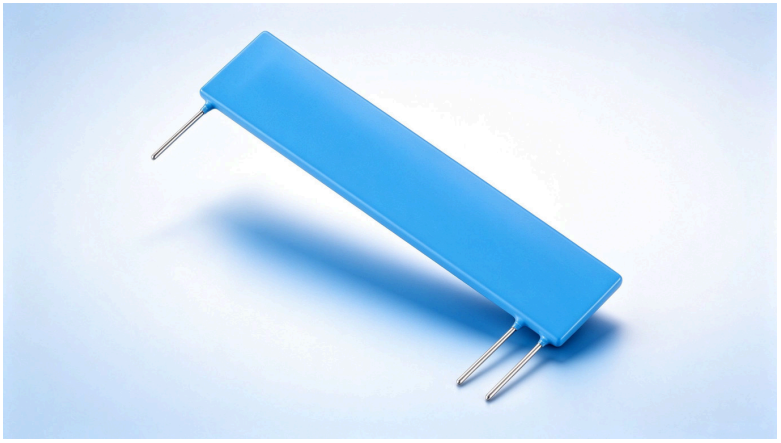
MCPF Series Chip Voltage-Divider Resistors

High-Voltage Divider Resistor Network

Applications

- Widely used in instrument transformers
- Motor drives and control circuits
- Medical equipment (X-ray, etc.)
- High-voltage supplies and new-energy applications



Technical Features

Chip-type high-voltage divider resistors on ceramic substrates, with a thick-film, non-inductive design.

The MCPF series is a three-terminal chip voltage-divider network. Divider ratio: (R1+R2)/R2; ratios can be customized.

Ordering Guide

Model: MCPF05

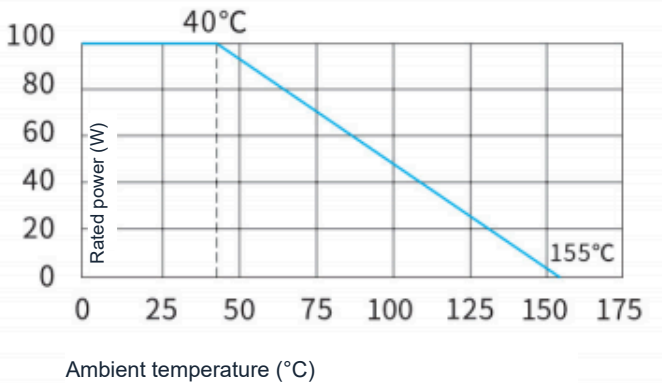
Resistance: 100M/100K

Tolerance: 1%

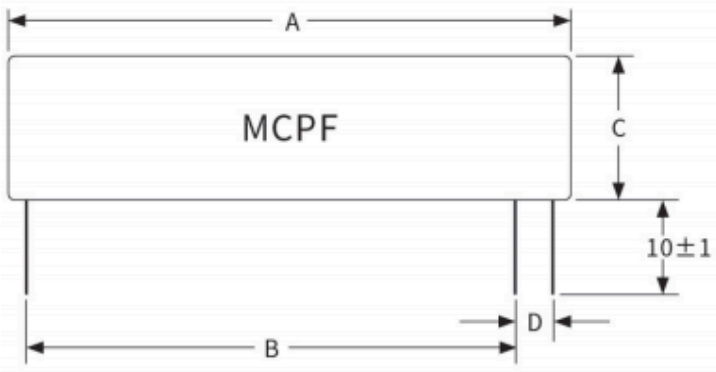
Absolute / tracking TCR: 100PPM/25PPM

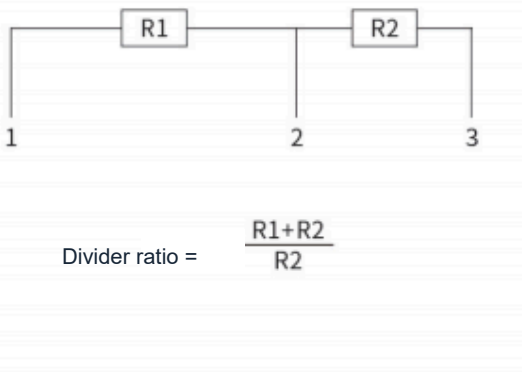
Special specifications can be customized by agreement.

Power Derating Curve



Dimensions





Specifications

Model	Voltage (kV)	Resistance range (MΩ)	Power at 40°C (W)	Dimensions in mm			
				A (±0.5)	B (±0.5)	C (±0.5)	D (±0.5)
MCPF05	5	1~100	0.3	25.5	18.0	7.8	5.1
MCPF07	7	1~100	0.5	25.5	18.0	12.8	5.1
MCPF11	10	1~100	1	38.2	28.0	12.8	5.1
MCPF12	12	1~200	1.2	52.5	33.5	12.8	5.1
MCPF16	15	1~200	1.5	52.5	42.0	18.0	5.1
MCPF21	20	1~200	2	52.5	42.0	25.5	5.1

Main Technical Specifications

Item	Specification
Resistance range (R1+R2)	1MΩ-200MΩ (customizable to customer requirements)
Divider ratio	Ratios can be adjusted to requirements
Absolute tolerance	±0.1%~±1.0%
Voltage coefficient	≤ 0.3PPM/V
Absolute TCR	±100PPM/°C (25°C ~ 85°C) (customizable to customer requirements)
Tracking TCR	±50PPM/°C (customizable to customer requirements)
Load life	1000 hours at rated power, ΔR ≤ ±0.4% R
Moisture resistance	MIL-Std-202, Method 106, ΔR ≤ ±0.5% R
Rated voltage	5kV~50kV
Operating temperature range	-55℃ ~155℃
Surface coating	Silicone resin on both sides (single-sided coating available on request)
Lead material	φ0.6 tinned copper wire