

MFP Series

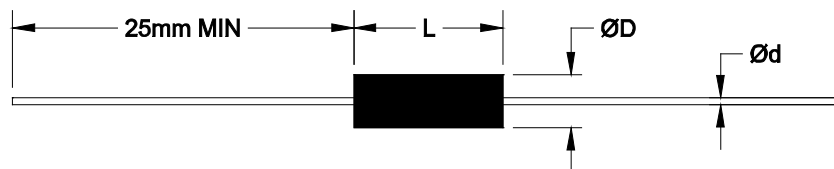
Precision Metal Film Resistors



- Resistances from 100hm to 1MOhms
- Power Rating to 2Watts
- Resistance Tolerances to $\pm 0.01\%$
- TCR's to $\pm 5\text{ppm/C}$
- Convenient RN Type Package Styles
- Lower Tolerance Available on Request

SPECIFICATIONS

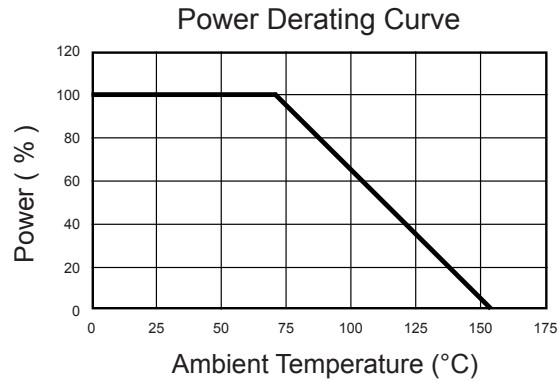
Type	MFP50	MFP55	MFP60	MFP65	MFP70
MIL-R-55182	RN50	RN55	RN60	RN65	RN70
DIN-44061	0204	0207	0411	0617	0719
Resistance Range	100 Ω to 100K		10 Ω to 1M		
Power rating (70°C)	0.125W	0.25W	0.5W	1W	2W
Tolerances	0.1%	0.01%, 0.025%, 0.05%, 0.1%		0.1%, 0.25%, 0.5%	
Temperature Coefficient	5 / 10 / 15 / 25 / 50 ppm/C				
Operating Voltage	200V	250V	300V	500V	500V
Short Time Overload Voltage	400V	500V	700V	1000V	1000V
Operating Temperature Range	-65 to 155°C				
Dimensions (mm)					
L	3.3 \pm 0.5	6.3 \pm 0.5	9.5 \pm 1.0	12.0 \pm 1.0	16.0 \pm 1.0
Φ D	1.7 \pm 0.2	2.3 \pm 0.2	3.5 \pm 0.5	5.5 \pm 0.5	5.5 \pm 0.5
ϕ d	0.6 \pm 0.05	0.6 \pm 0.05	0.6 \pm 0.05	0.8 \pm 0.05	0.8 \pm 0.05



Ordering Information

Part Number - Resistance - Tolerance - TCR
MFP65 10K Ohms 0.1% 10ppm

Performance Data



Test	Specification ΔR	Typical ΔR
Dielectric (3X rated Voltage, 1min)	$\pm 0.2\% + 0.1\Omega$	$\pm 0.02\%$
Load Life (Rated Power, 70°C, 2000hr)	$\pm 0.5\% + 0.01\Omega$	$\pm 0.1\%$
Temp. Cycling (5 cycles, -65°C, 25°C, 155°C, 25°C)	$\pm 0.2\% + 0.02\Omega$	$\pm 0.05\%$
Short Time Overload (2.5X Rated Power, 5s)	$\pm 0.2\% + 0.01\Omega$	$\pm 0.02\%$
Humidity Resistance (40°C, 95%RH, 56 days)	$\pm 0.5\% + 0.01\Omega$	$\pm 0.1\%$
Solder Heat (260°C, 10s)	$\pm 0.1\% + 0.01\Omega$	$\pm 0.03\%$
Shock (1Km/s ²)	$\pm 0.2\% + 0.01\Omega$	$\pm 0.02\%$
Vibration (10 to 2000 Hz)	$\pm 0.2\% + 0.01\Omega$	$\pm 0.02\%$
Low Temperature Exposure (-65°C, 2hr, 0W)	$\pm 0.2\% + 0.01\Omega$	$\pm 0.05\%$
High Temperature Exposure (155°C, 16hr, 0W)	$\pm 0.5\% + 0.01\Omega$	$\pm 0.1\%$
Solderability (Solder Dip, 230°C, 5s)	95% Coverage	95% Coverage
Insulation Resistance (500VDC, 1min)	10G Ohm	10G Ohm