

MFP Series

Precision Metal Film Resistors



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

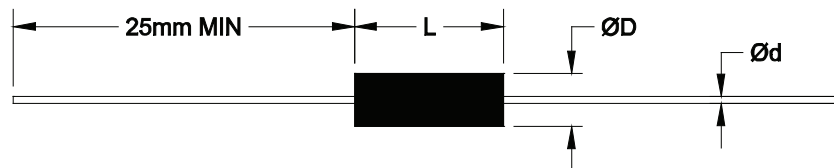


SPECIFICATIONS

Type	MFP55	MFP60	MFP65	MFP70
MIL-R-55182	RN55	RN60	RN65	RN70
DIN-44061	0207	0411	0617	0719
Resistance Range ¹	10 Ω to 1M ¹			
Power rating (70°C)	0.25W	0.5W	1W	2W
Tolerances	0.01%, 0.025%, 0.05%, 0.1%, 0.25%, 0.5%			
Temperature Coefficient	5 / 10 / 15 / 25 / 50 ppm/°C			
Operating Voltage	250V	300V	500V	500V
Short Time Overload Voltage	500V	700V	1000V	1000V
Operating Temperature Range	-65 to 155°C			
Storage Temperature ²	-65 to 40°C			
Unit Weight	Approx 0.23 grams			
Dimensions (mm)				
L	6.5 \pm 0.5	9.5 \pm 1.0	12.0 \pm 1.0	16.0 \pm 1.0
Φ D	2.3 \pm 0.2	3.5 \pm 0.5	4.5 \pm 0.5	5.5 \pm 0.5
Φ d	0.6 \pm 0.05	0.6 \pm 0.05	0.8 \pm 0.05	0.8 \pm 0.05

¹ Lower than 10 OHM or higher than 1 Mohm consult factory

² MSL-1



Ordering Information

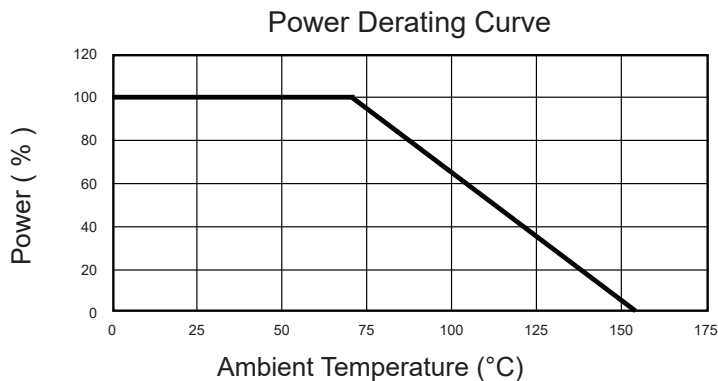
Part Description: Part Type - Resistance - Tolerance - TCR
MFP65 10K Ohms 0.1% 10ppm

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Performance Data



Test	Procedure	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	30 minutes at -55°C & 30 minutes at 150°C (5 total number of cycles)	$\pm 0.2\% + 0.01\Omega$	$\pm 0.05\%$
Short Time Overload	2.5X Rated Power, 5s @ 25°C	$\pm 0.2\% + 0.01\Omega$	$\pm 0.02\%$
Humidity Resistance	40°C, 90 to 95% RH, 56 days (Dissipation $\leq 0.01 P_n$)	$\pm 0.5\% + 0.05\Omega$	$\pm 0.1\%$
Solder Heat	260°C $\pm 5^\circ C$, 10 sec, 6 mm from the body	$\pm 0.1\% + 0.01\Omega$	$\pm 0.03\%$
Shock	1Km/s ²	$\pm 0.2\% + 0.01\Omega$	$\pm 0.02\%$
Vibration	10 to 2000 Hz: m/S ²	$\pm 0.2\% + 0.01\Omega$	$\pm 0.02\%$
Low Temperature Exposure	2 hours at -65°C	$\pm 0.2\% + 0.01\Omega$	$\pm 0.05\%$
High Temperature Exposure	16 hours at 150°C	$\pm 0.2\% + 0.01\Omega$	$\pm 0.1\%$
Solderability	Solder Dip ± 0.5 at 235° $\pm 5^\circ C$	95% Coverage	95% Coverage
Insulation Resistance	500VDC, 1min	10G Ohm	10G Ohm