



Professional Series

MRS16S, MRS16, MRS25, 0.1%, 0.5%, 1.0%

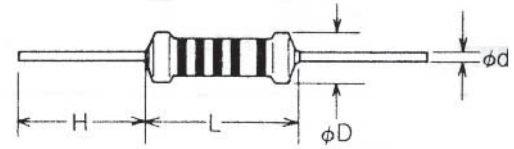
LEADFREE
RoHS Compliant

Miniature Type

INTRODUCTION

1. MEGASTAR-OHM miniature size resistors for saving PCB assembly.
2. Manufactured by high vacuum sputtering deposit metal film on high aluminum content ceramic rods.
3. Superior electrical performance and cost comparable to conventional sizes.
4. Standard tolerance: $\pm 1\%$
5. The 0.6 watts meet a severe overload test in accordance with UL specification #1412* without fire hazard.

Dimensions

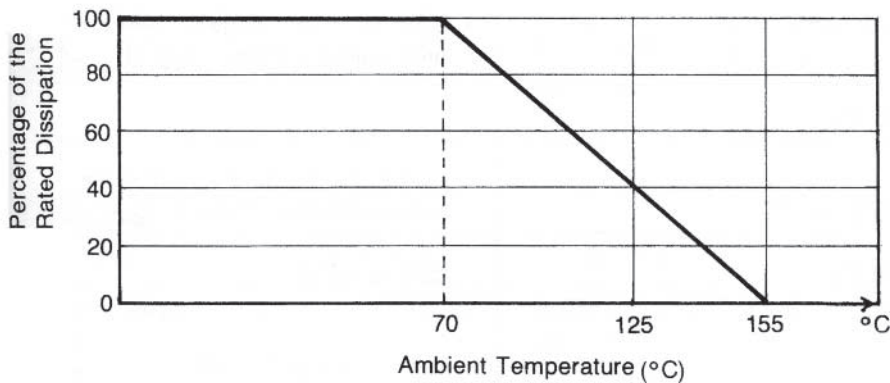


* UL-1412 is the standard for fusing resistors and temperature-limited resistors.

General Specifications

Type	Power Rating (W) 70°C	Tolerance	L	D	H(MIN)	d	Max Working Voltage	Max Overload Voltage	Resistance Range
MRS16S	0.4W	0.1%, 0.5%, 1.0%	3.7 \pm 0.4	1.5 \pm 0.2	27	0.45 \pm 0.2	200V	350V	E ₉₆
MRS16	0.5W	0.1%, 0.5%, 1.0%	3.7 \pm 0.4	1.5 \pm 0.2	27	0.45 \pm 0.2	200V	350V	
MRS25	0.6W	0.1%, 0.5%, 1.0%	6.5 \pm 0.5	2.3 \pm 0.2	27	0.56 \pm 0.2	250V	500V	

Derating Curve



Part Numbering System

MRS25

1002

F

T

Type
MRS16S
MRS16
MRS25

Nominal Resistance	
Code	Description
1002	10.0 K Ω
10R0	10.0 K Ω
4 Digits 3 first significant digits plus multiplier	

Tolerance	
Code	Description
B	$\pm 0.1\%$
D	$\pm 0.5\%$
F	$\pm 1.0\%$

Packaging	
Code	Description
B	Bulk
T	Tape & Reel



Professional Series

FM0204, FM0207, 5%

MRS16S, MRS16, MRS25, 0.1%, 0.5%, 1.0%

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CHARACTERISTICS

Requirements	Characteristics	Remarks
Temperature Coefficient	$\pm 50\text{ppm}$	10-6/K MIL-STD-202 Metrob 304
Thermal Resistance	$140 \frac{\text{K}}{\text{W}}$	
Life Stability At 70°C 1000 Hr. Max. Resistance Change	0.5%	K Most Umax. 1.5 hr ON 0.5 hr OFF
Dielectric Withstanding Voltage	300 Vr.m.s. for 0.4W and 0.5W 500 Vr.m.s. for 0.6W	
Insulation Resistance	$>10^3\text{M}\Omega$	100VDC
Damp Heat Steady State	$\pm 0.5\%$	56 days at 40°C and 93% relative humidity at a voltage of 0.1 times rated voltage. Max 16 volts.
Short-time Overload	${}^3R \pm 0.25\%$	2.5 times rated voltage, at most 2 times limiting element voltage (U max)
Moisture Resistance	$\pm 0.5\%$	
Resistance to Soldering Heat	$\pm 0.25\%$	$350 \pm 5^\circ\text{C}$ to 6mm distance from the resistance body in 3 sec.
Temperature Cycling	$\pm 0.5\%$	-65°C to $+155^\circ\text{C}$
Low Temperature Operation	$\pm 0.25\%$	High frequency, 10-500Hz
Vibration	$\pm 0.25\%$	-65°C
Current Noise	up to $1\text{M}\Omega \leq 0.5 \frac{\mu\text{V}}{\text{V}}$	-5dB
Solderability	$>95\%$ coverage	Dipping in 235°C solder bath for 2.5 sec.
Resistance to Solvents	No failure to top coating and color code	
Terminal Strength	$\pm 0.25\%$	tensile, bending and torque
Failure Rate	$<10^9/\text{H}$	