

Miniature Size

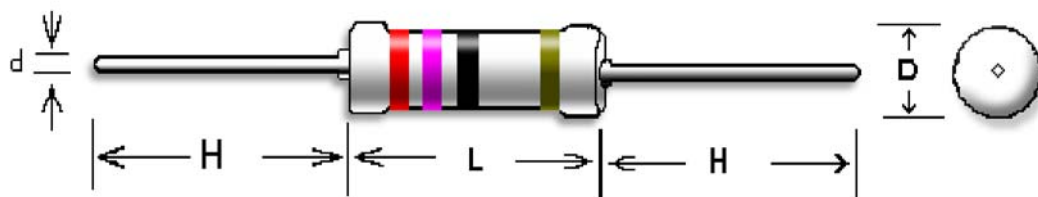
M-series Metal Film Fixed Power Resistor

Specifications Per

- IEC-115-1
- MIL R-10509F
- DIN 44051

Features

- Conformal Multi-layer Coating
- Color Code Per MIL & EIA Standards
- Special Tin Plated Electrolytic Copper Lead Wire



Dimensions:

| Type | Body Length (L , mm) | Body Diameter (D , mm) | Lead Wire Length (H , mm) | Lead Wire Diameter (d , mm) | Net Weight Per 1000Pcs |
|-------|----------------------|------------------------|---------------------------|-----------------------------|------------------------|
| M100S | 8.8 ±1.0 | 3.2 ±0.2 | 26 ±3.0 | 0.60 ±0.03 | 340 Grams |
| M200S | 12.0 ±1.0 | 4.5 ±0.5 | 26 ±3.0 | 0.70 ±0.03 | 600 Grams |
| M300S | 15.5 ±1.0 | 6.0 ±0.5 | 26 ±3.0 | 0.80 ±0.03 | 1200 Grams |

General Specifications:

| Type | Power Rating At 70°C | Max. Working Voltage | Max. Overload Voltage | Min. Resistance | Max. Resistance | Resistance Tolerance | Standard Resistance Values |
|-------|----------------------|----------------------|-----------------------|-----------------|-----------------|----------------------|----------------------------|
| M100S | 1W | 350V | 700V | 1Ω | 1MΩ | ±1% | E-24/E-96 |
| M200S | 2W | 500V | 1000V | 1Ω | 1MΩ | ±1% | E-24/E-96 |
| M300S | 3W | 500V | 1000V | 1Ω | 1MΩ | ±1% | E-24/E-96 |

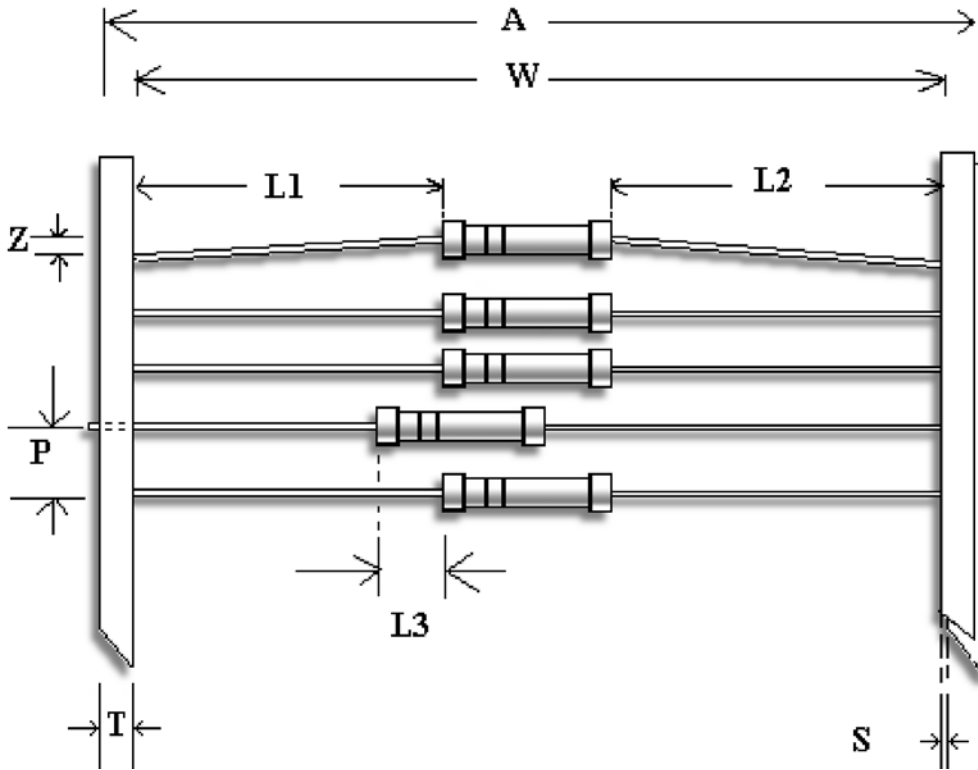
Special sizes, values, and specifications not listed available on special order.

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Taping/Packing Specifications:



Unit (mm)

| Type | A Max. | L1-L2 (Max.) | L3 (Max.) | P ±0.5 | S (Max.) | T ±0.5 | W ±1.5 | Z (Max.) |
|-------|-----------|-----------------|--------------|-----------|-------------|-----------|-----------|-------------|
| M100S | 65 | ±1.0 | 0.5 | 5.0 | 0.8 | 6.0 | 52.5 | 1.2 |
| M200S | 65 | ±1.0 | 0.5 | 5.0 | 0.8 | 6.0 | 52.5 | 1.2 |
| M300S | 76 | ±1.5 | 1.0 | 10.0 | 0.8 | 6.0 | 63.5 | 1.2 |

| Type | Packing Type | M100S | M200S | M300S |
|---------------------------------|--------------|-------|-------|-------|
| Minimum Packing QTY (pcs) | Reel | 3000 | 2000 | 1000 |
| | Ammo pack | 2000 | 1000 | 500 |

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Technical Specifications:

| Characteristics | Limits | |
|---|-------------------------------------|-------------|
| Dielectric Withstanding Voltage, V AC or DC | M100S M200S / M300S | 700 1000 |
| Temperature Coefficient, PPM / °C | ±50, ±100 | |
| Operating Temperature Range, °C | -55~+150 | |
| Insulation Resistance, MΩ | 10 ⁴ | |
| Voltage Coefficient, PPM / V | 25 | |
| Power Derating, Linear | 100% at 70°C, down to zero at 150°C | |

Performance Specifications:

| Test Characteristics | Test Conditions | Limits |
|------------------------------|--|----------------|
| Short Time Over Load | IEC 60115-1 4.13 5 seconds 2.5x rated voltage (not over max. overload voltage) | ±(0.5%+0.05R) |
| Load Life In Humidity | IEC 60115-1 4.24 56 days at 40°C and 93% relative humidity | ±(1%+0.05R) |
| Load Life (At 70°C) | IEC 60115-1 4.25.1 Rated load 1.5 hours ON, 0.5 hours OFF, at 70°C | ±(1%+0.05R) |
| Resistance To Soldering Heat | IEC 60115-1 4.18 10 seconds at 260°C solder bath temperature | ±(0.25%+0.05R) |
| Solderability | MIL-STD-202 Method 208 Solder area covered after 230±5°C/5±0.5 seconds w/ flux applied | 95% Min. |
| Vibration | IEC 60115-1 4.22 Six hours in each parallel and axial direction w/ a simple harmonic motion having an amplitude of 0.75mm and 10 to 500 Hz. | ±(0.25%+0.05R) |
| Terminal Endurance | IEC 60115-1 4.25.3 1000 hours at 150°C without load | ±(0.2%+0.05R) |
| Thermal Shock | IEC 60115-1 4.19 -55°C 30minutes, +150°C 30minutes, 5 cycles | ±(0.25%+0.05R) |

Ordering Information

| Type | Tolerance | Temperature Coefficient | Resistance Value | Packaging | Special Request (Optional) |
|-------|-----------|-------------------------|------------------|------------------|----------------------------|
| M100S | F (1%) | TK100 | 10K | TB (Tape/Box) | LV (Low value) |

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