



THIN FILM MELF RESISTORS

MMU 0102, MMA 0204, MMB 0207 - Professional

Low Ohmic Professional Thin Film MELF Resistors



KEY BENEFITS

- Low ohmic range down to 0.22 Ω
- Tight tolerance down to 1 %
- Low temperature coefficient of 50 ppm/K
- 0204 and 0207 case sizes
- Excellent long term stability
- Advanced thin film technology
- AEC-Q200 qualified

APPLICATIONS

- DC/DC conversion for LED lighting, automotive, and industrial electronics
- Current measurement in low-power applications (≤ 1 W)
- Current measurement in solar inverters and other renewable energy applications with fluctuating power
- LED drivers and other pulse-width modulation applications
- Electric and hybrid vehicles and other battery management systems

RESOURCES

- Datasheet: MMU 0102, MMA 0204, MMB 0207 - Professional - www.vishay.com/doc?28713
- For technical questions contact melf@vishay.com
- Material categorization: for definitions, please see www.vishay.com/doc?99912



HALOGEN
FREE

GREEN
[5-2008]

RoHS
COMPLIANT

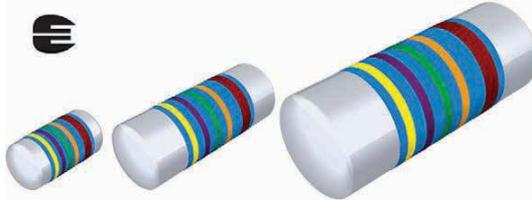
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SOLUTIONS



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Low Ohmic Professional Thin Film MELF Resistors



MMU 0102, MMA 0204, and MMB 0207 professional thin film MELF resistors are the perfect choice for most fields of modern professional electronics where reliability and stability are of major concern. The typical applications in the fields of automotive, telecommunications, and medical equipment reflect the outstanding level of proven reliability.

- Approved according to EN 140401-803
- AEC-Q200 qualified
- Advanced metal film technology
- Excellent overall stability: exceeds class 0.25
- Best in class pulse load capability
- Intrinsic sulfur resistance
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912

APPLICATIONS

- Automotive
- Telecommunication
- Industrial
- Medical equipment

TECHNICAL SPECIFICATIONS				
Type/Size	Rated Dissipation, P ₇₀	TCR	Tolerance	Resistance
MMU 0102	0.3 W	± 50 ppm/K	± 5 %	0.22 Ω to 0.91 Ω
			± 2 %	1 Ω to 9.1 Ω
MMA 0204	0.4 W	± 50 ppm/K	± 1 %	0.22 Ω to 10 Ω ⁽¹⁾
MMB 0207	1.0 W	± 100 ppm/K	± 2 %	0.1 Ω to 0.2 Ω ⁽¹⁾
		± 50 ppm/K	± 1 %	0.22 Ω to 10 Ω ⁽¹⁾

⁽¹⁾ Approval according to EN 140401-803 is not available for resistance values $R \leq 0.91 \Omega$.

PRODUCT INFORMATION

Built on an advanced metal film technology, the Low Ohmic Professional Thin Film MELF resistors offer an ohmic range down to 0.22 Ω with tolerance down to ± 1 %, low TCR of ± 50 ppm/K, and rated power dissipation up to 1 W at +70 °C. The devices, available in 0102, 0204, and 0207 case sizes, feature a robust design, intrinsic sulfur resistance, and excellent overall stability.

The MMU 0102, MMA 0204, and MMB 0207 provide proven reliability for precise current sensing in DC/DC conversion and pulse-width modulation in LED drivers, solar inverters, industrial electronics, and battery management systems for electric and hybrid vehicles, in addition to telecom and medical equipment. The devices are suitable for processing on automatic SMD assembly systems, the lead (Pb)-free devices are RoHS-compliant, halogen-free, and Vishay Green.

Revision 26-Mar-16