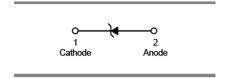
Surface Mount Zener Diode







Features:

- Planar Die Construction
- · 500mW Power Dissipation
- · General Purpose, Medium Current
- · Ideally Suited for Automated Assembly Processes

2

SOD-123

Applications:

- Zener diode
- · Ultra-small surface mount package

Maximum Rating @ TA = 25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|---|------------------|-------------|------|
| Forward voltage @ I _F =10mA | V _F | 0.9 | V |
| Power dissipation | P_{d} | 500 | mW |
| Thermal resistance, junction to ambient air | $R_{\theta jA}$ | 350 | °C/W |
| Junction temperature | T _j | 150 | °C |
| Storage temperature range | T _{stg} | -65 to +150 | °C |

Note : Device mounted on ceramic PCB; 7.6mm \times 9.4mm \times 0.87mm with pad areas 25mm². Tested with pulses, Tp \leq 1ms.

Electrical Characteristics @ TA = 25°C unless otherwise specified

| | | Zener Voltage Range | | Test Current | Maximum Zener Impedance | | Maximum Reverse Leakage Current | | |
|-------------|--------------|---------------------|---------------------------------|-----------------|----------------------------|----------------------------------|---|----------------|-----------------|
| Type Number | Type Code | | V _z @I _{ZT} | | I _{ZT} | Z _{ZT} @I _{ZT} | Z _{ZK} @I _{ZK} = 0.25mA | I _R | @V _R |
| | | Nom(V) | Min(V) | Max(V) | mA | | Ω | μΑ | V |
| MMSZ5251B | K1 | 22 | 20.9 | 23.1 | 5.6 | 29 | 600 | 0.1 | 17 |

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Surface Mount Zener Diode



Typical Characteristics @ TA = 25°C unless otherwise specified

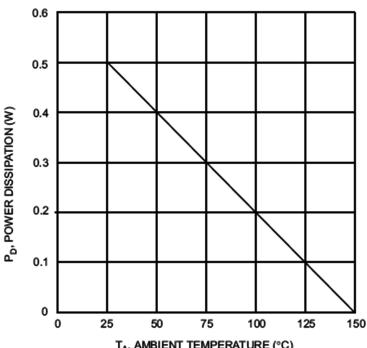
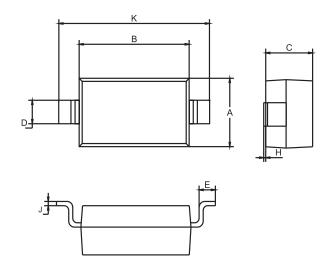


Fig. 1 Power Dissipation vs Ambient Temperature

Package Outline

Plastic surface mounted package



| SOD-123 | | | | |
|----------------------|--------------|------|--|--|
| Dim | Min | Max | | |
| А | 1.4 | 1.8 | | |
| В | 2.55 | 2.85 | | |
| С | 1.15 Typical | | | |
| D | 0.5 | 0.6 | | |
| E | 0.3 | 0.4 | | |
| Н | 0.02 | 0.10 | | |
| J | 0.1 Typical | | | |
| K | 3.55 3.85 | | | |
| All Dimensions in mm | | | | |

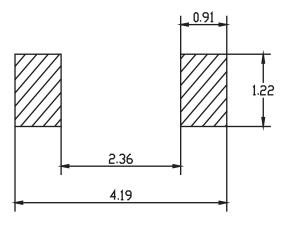
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Surface Mount Zener Diode



Soldering Footprint



Dimensions: Millimetres

Package Information

| Device | Package | Shipping |
|---------------|---------|-------------------|
| MMSZ5251B-7-F | SOD-123 | 3,000/Tape & Reel |

Part Number Table

| Description | Part Number | |
|---------------------------|---------------|--|
| Surface Mount Zener Diode | MMSZ5251B-7-F | |

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