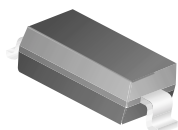


MMSD4448

Small Signal Diode



SOD123
Color Band Denotes Cathode
Top Marking: 10

Absolute Maximum Ratings * $T_a = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Unit |
|-------------|--|-------------|------------------|
| V_{RRM} | Maximum Repetitive Reverse Voltage | 100 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current | 200 | mA |
| I_{FSM} | Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond | 1.0 | A |
| | | 2.0 | A |
| T_{STG} | Storage Temperature Range | -55 to +150 | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | 150 | $^\circ\text{C}$ |

* These ratings are limiting values above which the serviceability of the diode may be impaired.

Thermal Characteristics

| Symbol | Parameter | Value | Unit |
|-----------------|---|-------|--------------------|
| P_D | Power Dissipation | 400 | mW |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 312 | $^\circ\text{C/W}$ |

Electrical Characteristics $T_C = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Conditions | Min. | Max. | Units |
|----------------------|-------------------------------|---|------|------|---------------|
| V_R | Breakdown Voltage | $I_R = 5.0\mu\text{A}$ | 75 | | V |
| | | $I_R = 100\mu\text{A}$ | 100 | | |
| V_F | Forward Voltage | $I_F = 5\text{mA}$ | 0.62 | 0.72 | V |
| | | $I_F = 100\text{mA}$ | | 1.0 | V |
| I_R | Reverse Leakage | $V_R = 20\text{V}$ | | 25 | nA |
| | | $V_R = 20\text{V}, T_A = 150^\circ\text{C}$ | | 50 | μA |
| | | $V_R = 75\text{V}$ | | 5.0 | μA |
| C_T | Total Capacitance | $V_R = 0, f = 1.0\text{MHz}$ | | 2.0 | pF |
| t_{rr} | Reverse Recovery Time | $I_F = 10\text{mA}, V_R = 6.0\text{V},$ $I_{rr} = 1.0\text{mA}, R_L = 100\Omega$ | | 4.0 | ns |
| $V_{F(\text{peak})}$ | Peak Forward Recovery Voltage | $I_F = 50\text{mA}, \text{pw} = 0.1\mu\text{s}$ rep rate: 5 to 10KHz | | 2.5 | V |

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| | | | | |
|--------------------------------------|---------------------|------------------------|------------------------------|------------------------|
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| CoolFET™ | FRFET™ | MICROCOUPLER™ | PowerSaver™ | SuperSOT™-3 |
| CROSSVOLT™ | GlobalOptoisolator™ | MicroFET™ | PowerTrench [®] | SuperSOT™-6 |
| DOME™ | GTO™ | MicroPak™ | QFET [®] | SuperSOT™-8 |
| EcoSPARK™ | HiSeC™ | MICROWIRE™ | QS™ | SyncFET™ |
| E ² CMOST™ | I ² C™ | MSX™ | QT Optoelectronics™ | TinyLogic [®] |
| EnSigna™ | <i>i-Lo</i> ™ | MSXPro™ | Quiet Series™ | TINYOPTO™ |
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Definition of Terms

| Datasheet Identification | Product Status | Definition |
|--------------------------|------------------------|---|
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