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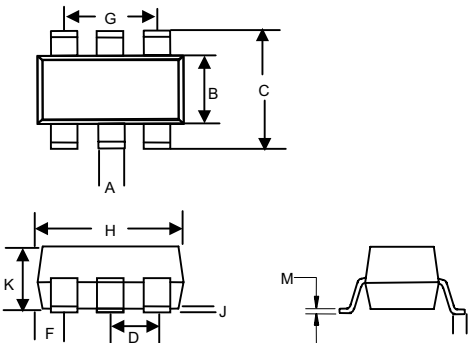
MMBD4448HAQW/ ADW/CDW/SDW/ CQW/TW

200mW Switching Diodes

Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance, Power Dissipation
- Ultra-Small Surface Mount Package
- Case Material:Molded Plastic. UL Flammability Classificatio Rating 94-0 and MSL Rating 1

SOT-363



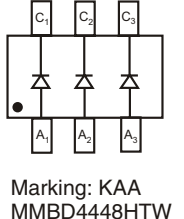
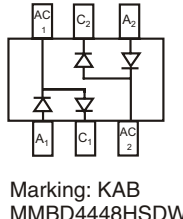
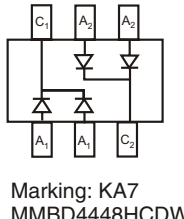
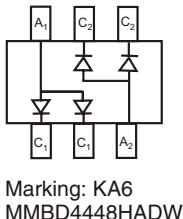
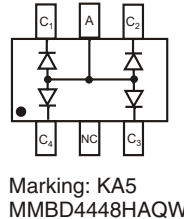
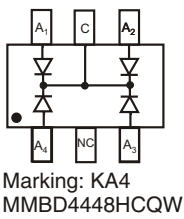
Maximum Ratings

| Symbol | Rating | Rating | Unit |
|-----------------|--|-------------|---------------|
| V_{RM} | Non-Repetitive Peak Reverse Voltage | 100 | V |
| V_{RRM} | Peak Repetitive Reverse Voltage | 80 | V |
| V_{RWM} | Working Peak Reverse Voltage | | |
| V_R | DC Blocking Voltage | | |
| $V_{R(RMS)}$ | RMS Reverse Voltage | 57 | V |
| I_{FM} | Forward Continuous Current | 500 | mA |
| I_O | Average Rectified Output Current | 250 | mA |
| I_{FSM} | Peak Forward Surge Current @ 1.0 μ s | 4.0 | A |
| | | @ 1.0s | |
| $R_{\theta JA}$ | Thermal Resistance Junction to Ambient | 625 | $^{\circ}C/W$ |
| P_D | Power dissipation | 200 | mW |
| T_J | Junction Temperature | 150 | $^{\circ}C$ |
| T_{STG} | Storage Temperature | -65 to +150 | $^{\circ}C$ |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Test Conditions |
|------------|---------------------------------|------|------------|-----------------------------|
| $V_{(BR)}$ | Reverse Breakdown Voltage | 80V | --- | $I_R=100 \mu A$ |
| I_R | Reverse Voltage Leakage Current | --- | 100nA | $V_R=70V$ |
| | | | $50 \mu A$ | $V_R=75V, T_J=150^{\circ}C$ |
| | | | $30 \mu A$ | $V_R=25V, T_J=150^{\circ}C$ |
| V_F | Forward Voltage | 0.62 | 0.72V | $I_F=5.0mA$ |
| | | | 0.855V | $I_F=10mA$ |
| | | | 1.0V | $I_F=50mA$ |
| C_T | Total Capacitance | --- | 1.25V | $I_F=150mA$ |
| | | | 3.5pF | $V_R=6V, f=1MHz$ |
| t_{rr} | Reverse Recovery Time | --- | 4.0ns | $I_F=5mA, V_R=6V$ |

| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .004 | .012 | 0.10 | 0.30 | |
| B | .045 | .053 | 1.15 | 1.35 | |
| C | .079 | .087 | 2.00 | 2.20 | |
| D | .026 | | 0.65Nominal | | |
| F | .012 | .016 | 0.30 | 0.40 | |
| H | .071 | .087 | 1.80 | 2.20 | |
| J | --- | .004 | --- | 0.10 | |
| K | .035 | .039 | 0.90 | 1.00 | |
| L | .010 | .016 | 0.25 | 0.40 | |
| M | .004 | .016 | 0.10 | 0.25 | |



MMBD4448HCQW/AQW/ADW/CDW/SDW/TW

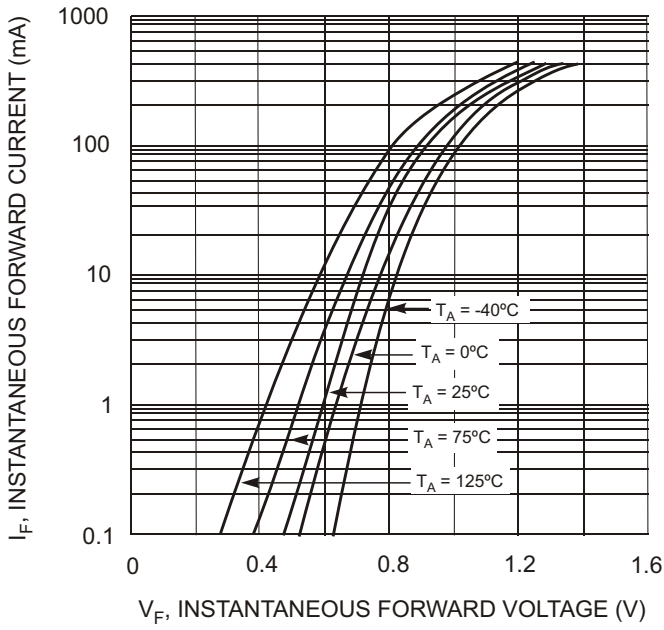


Fig. 1 Typical Forward Characteristics

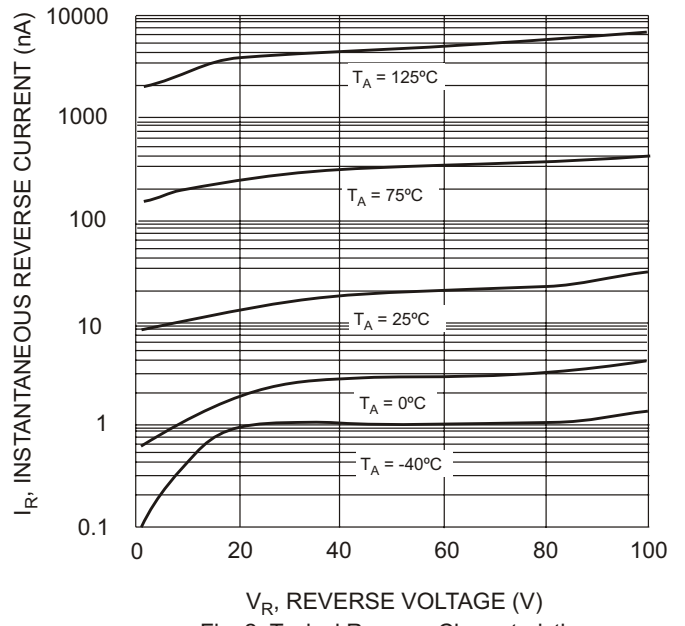


Fig. 2 Typical Reverse Characteristics

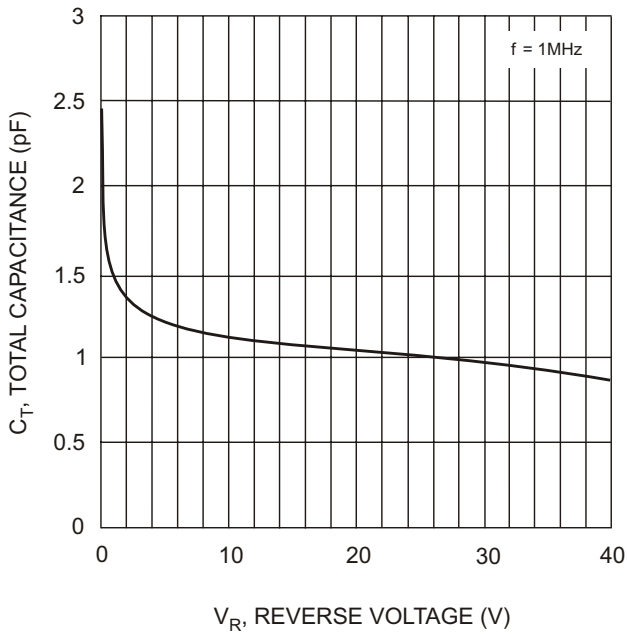


Fig. 3 Typical Capacitance vs. Reverse Voltage

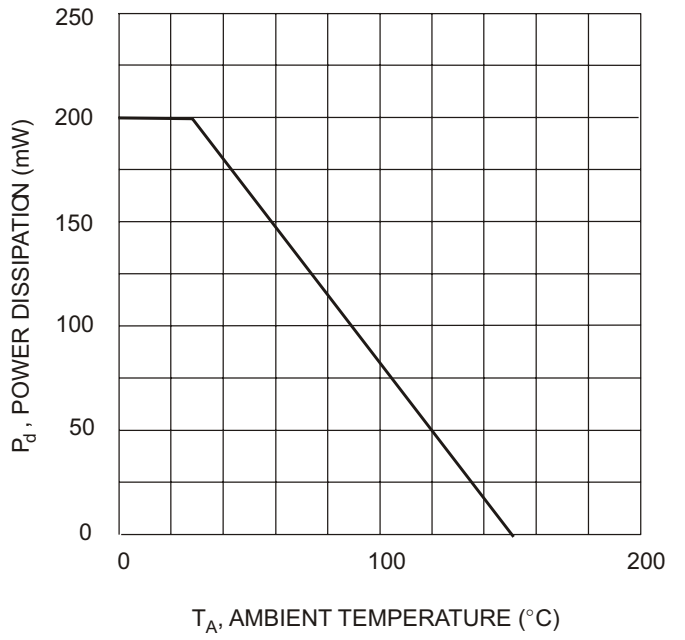


Fig. 4 Power Derating Curve, Total Package

MMBD4448HCQW/AQW/ADW/CDW/SDW/TW

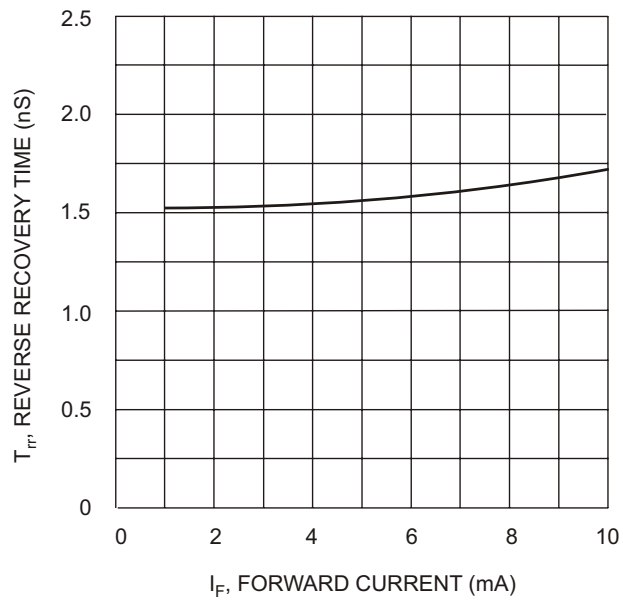


Fig. 5 Reverse Recovery Time vs. Forward Current

Ordering Information

| Device | Packing |
|------------------|----------------------|
| (Part Number)-TP | Tape&Reel;3Kpcs/Reel |

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