



Micro Commercial Components



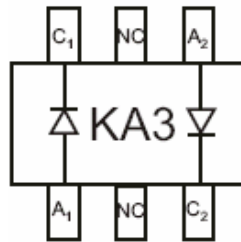
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MMBD4448DW

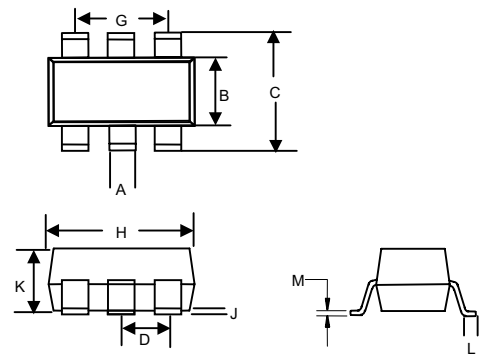
200mW Switching Diodes

Features

- For General Purpose Switching Applications
- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Ultra-Small Surface Mount Package
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High Conductance, Power Dissipation
- Fast Switching Speed



SOT-363



Maximum Ratings

| Symbol | Rating | Rating | Unit |
|-----------------|--|-------------|---------------|
| V_{RM} | Non-Repetitive Peak Reverse Voltage | 100 | V |
| V_{RRM} | Peak Repetitive Reverse Voltage | 75 | V |
| V_{RWM} | Working Peak Reverse Voltage | | |
| V_R | DC Blocking Voltage | | |
| $V_{R(RMS)}$ | RMS Reverse Voltage | 53 | 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 $^{\circ}C$ Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Test Conditions | |
|------------|---------------------------------|-----|-------------|--|------------------|
| $V_{(BR)}$ | Reverse Breakdown Voltage | 75V | --- | $I_R=10 \mu A$ | |
| I_R | Reverse Voltage Leakage Current | --- | 2.5 μA | $V_R=75V, T_J=150^{\circ}C$ | |
| | | | 50 μA | $V_R=25V, T_J=150^{\circ}C$ | |
| | | | 35 μA | $V_R=20V$ | |
| V_F | Forward Voltage | 0.6 | 0.72V | $I_F=5.0mA$ | |
| | | | --- | 0.855V | $I_F=10mA$ |
| | | | --- | 1.0V | $I_F=50mA$ |
| C_T | Total Capacitance | --- | 1.25V | $I_F=150mA$ | |
| | | | --- | 4.0pF | $V_R=0V, f=1MHz$ |
| t_{rr} | Reverse Recovery Time | --- | 4.0ns | $I_R=I_F=10mA, I_{rr}=0.1xI_R, R_L=100 \Omega$ | |

| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .006 | .014 | 0.15 | 0.35 | |
| B | .045 | .053 | 1.15 | 1.35 | |
| C | .085 | .096 | 2.15 | 2.45 | |
| D | .026 | | 0.65Nominal | | |
| G | .047 | .055 | 1.20 | 1.40 | |
| H | .071 | .087 | 1.80 | 2.20 | |
| J | --- | .004 | --- | 0.10 | |
| K | .035 | .043 | 0.90 | 1.10 | |
| L | .010 | .018 | 0.26 | 0.46 | |
| M | .003 | .006 | 0.08 | 0.15 | |

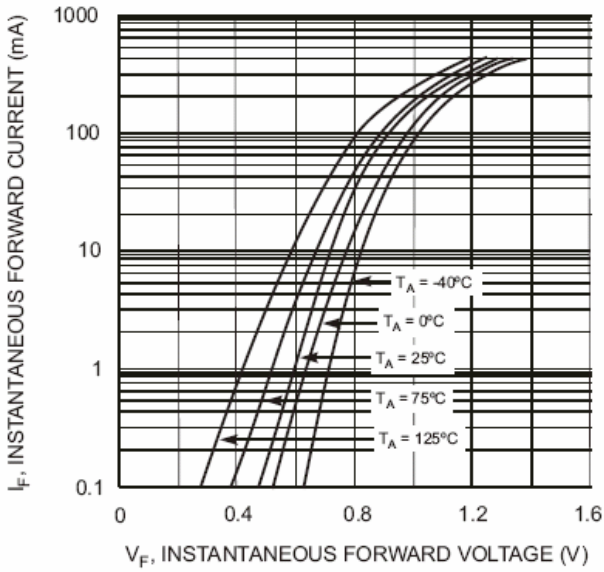


Fig. 1 Typical Forward Characteristics

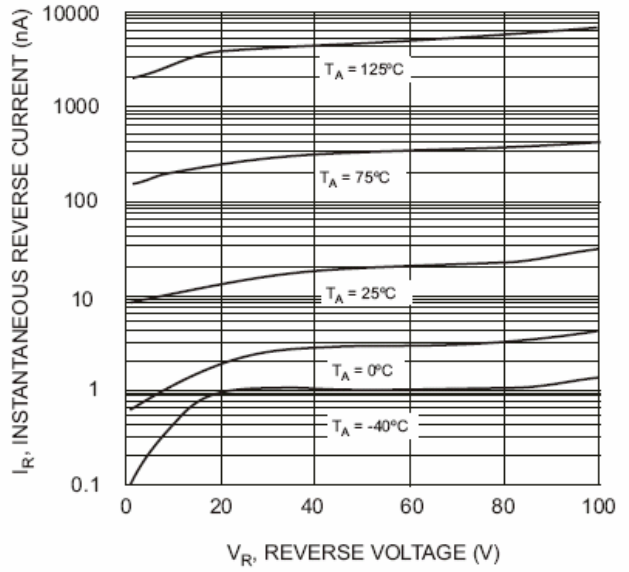


Fig. 2 Typical Reverse Characteristics

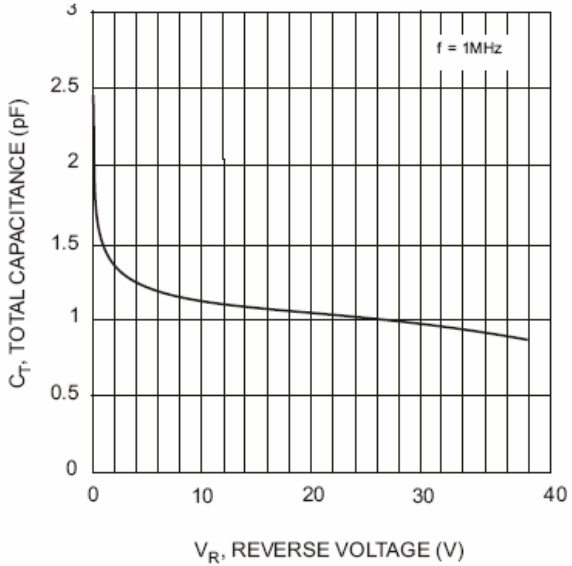


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

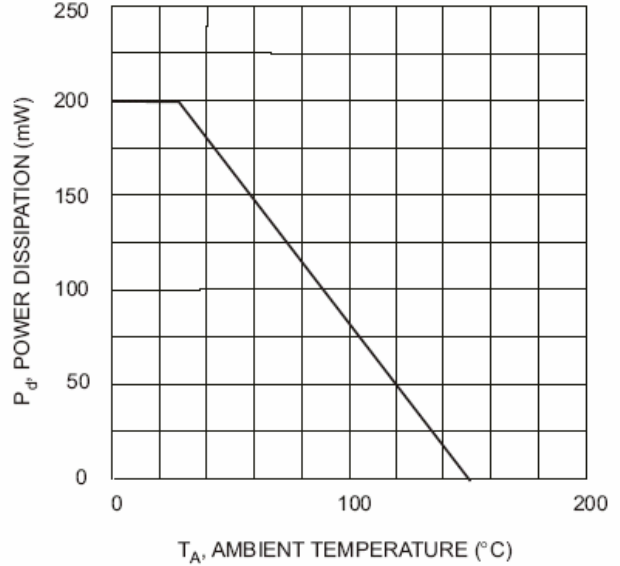


Fig. 4 Power Derating Curve, Total Package

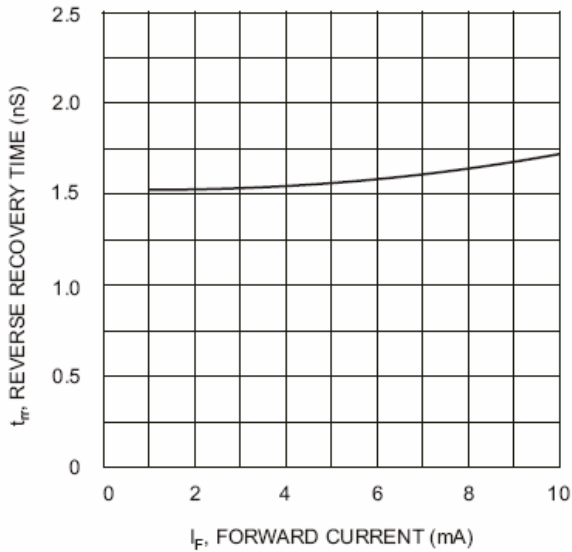


Fig. 5 Reverse Recovery Time vs. Forward Current



TM

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Ordering Information :

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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