Elektronische Bauelemente

# MMBD4448HAQW
# ADW/CDW/SDW/TW
## Surface Mount Switching Diode Array

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

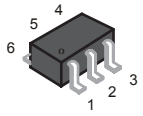
SOT-363

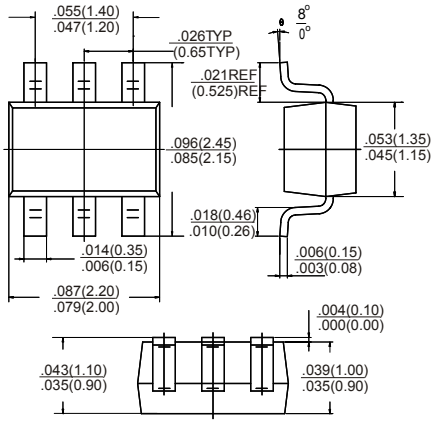
### FEATURES

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- High Conductance Power dissipation

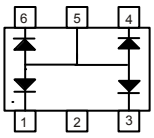
### MECHANICAL DATA

- Case: SOT-363, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.006 grams (approx.)
- Mounting Position: Any

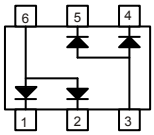



Dimensions in inches and (millimeters)




MMBD4448HAQW
Marking: KA5




MMBD4448HADW
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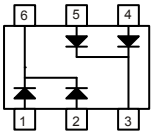


MMBD4448HCDW
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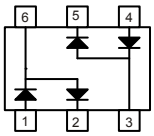


MMBD4448HSDW
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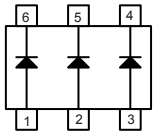


MMBD4448HTW
Marking: KAA

**MAXIMUM RATINGS** ($T_A$ = 25°C unless otherwise noted)

| Rating | Symbol | Value | Unit |
|---|---|---|---|
| Non-Repetitive Peak Reverse Voltage | $V_{RM}$ | 100 | V |
| Peak Repetitive Reverse Voltage | $V_{RRM}$ | 80 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 57 | V |
| Average Rectified out Current(Note 1) | $I_o$ | 250 | mA |
| Forward Continuous Current (Note 1) | $I_{FM}$ | 500 | mA |
| Thermal Resistance Junction to Ambient Air (Note1) | $R_{thJA}$ | 625 | °C/W |
| Storage Temperature Range | $T_{stg}$ | −55 to +150 | °C |

Notes: 1. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc. suggested pad layout

**ELECTRICAL CHARACTERISTICS** ($T_A$ = 25°C unless otherwise noted) (EACH DIODE)

| Characteristic | | Symbol | Min | Max | Unit |
|---|---|---|---|---|---|
| Reverse Breakdown Voltage (Note 2) | | V(BR)R | 80 | Ð | V |
| Forward Voltage (Note 2) | IF=5.0mA | $V_F$ | 0.62 | 0.72 | V |
| | IF=10mA | | — | 0.855 | |
| | IF=100mA | | — | 1.0 | |
| | IF=150mA | | — | 1.25 | |
| Reverse Current (Note 2) | VR=70V | $I_R$ | — | 100 | nA |
| | VR=75V, Tj=150°C | | — | 50 | uA |
| | VR=25V, Tj=150°C | | — | 30 | uA |
| | VR=20V | | — | 25 | nA |
| Total Capacitance VR=6V, f=1.0MHz | | $C_T$ | — | 3.5 | pF |
| Reverse Recovery Time IF=IR=10mA, Irr=0.1XIR,RL=100 Ohms | | $t_{rr}$ | — | 4.0 | nS |

Note 2. Short duration test pulse used to minimize self-heating.

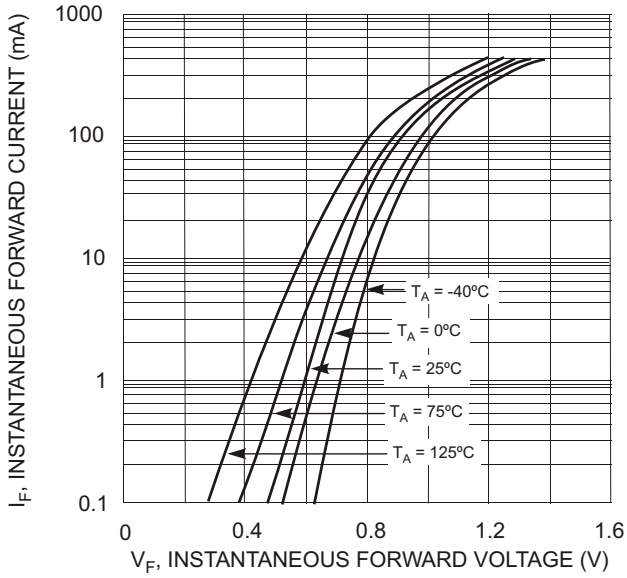


Fig. 1 Typical Forward Characteristics

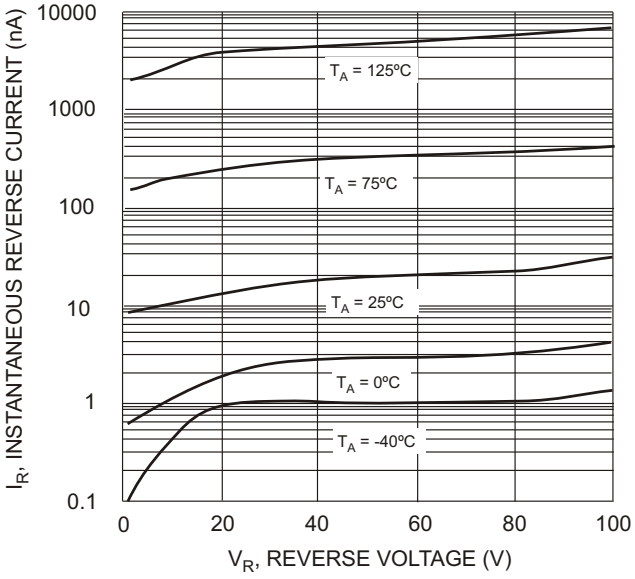


Fig. 2 Typical Reverse Characteristics

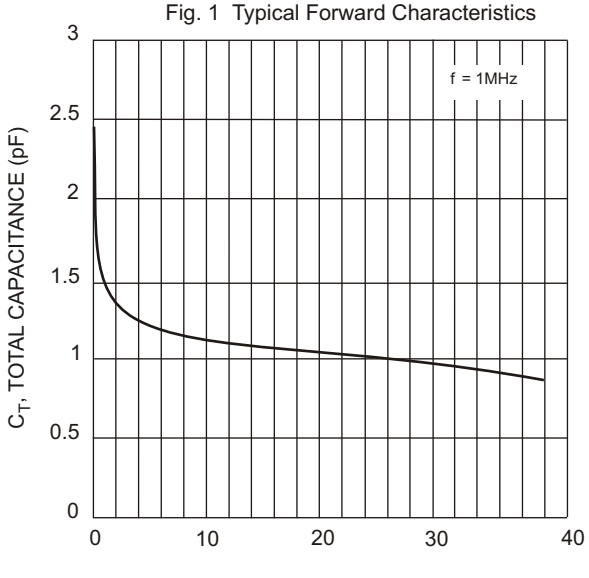


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

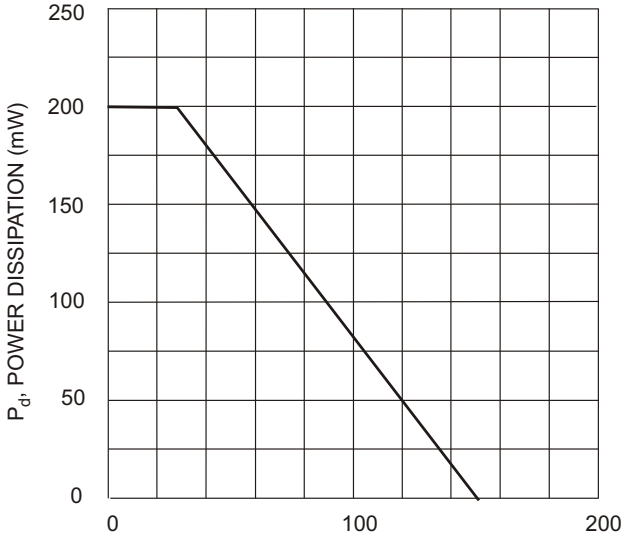


Fig. 4 Power Derating Curve, Total Package

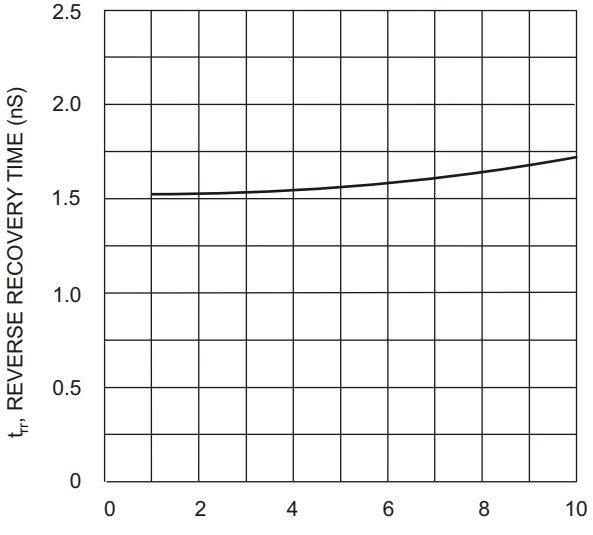


Fig. 5 Reverse Recovery Time vs Forward Current.