

RoHS Compliant Product

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

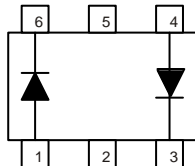
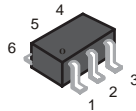
SOT-363

FEATURES

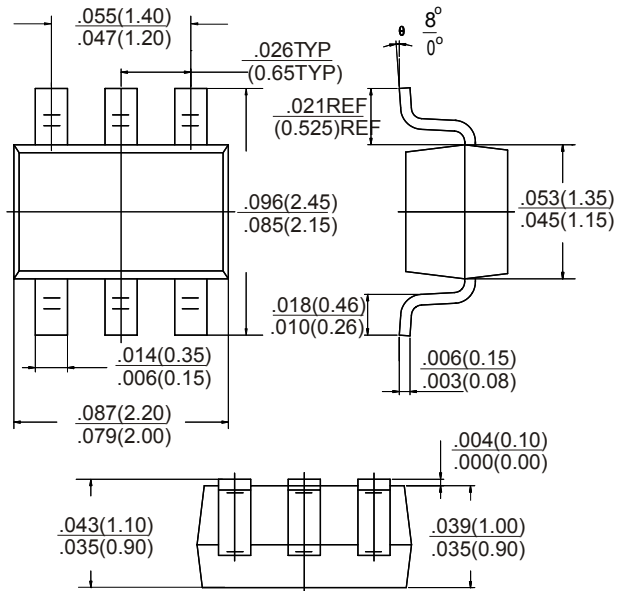
- Fast Switching Speed
- Ultra-Small Surface Mount Package
- High Conductance Power dissipation

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



MMBD4448 DW Marking: KA3



Dimensions in inches and (millimeters)

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Rating	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	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	$^\circ\text{C}/\text{W}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

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 ($T_A = 25^\circ\text{C}$ unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	75	—	V
Forward Voltage (Note 2)	V_F	$I_F=5.0\text{mA}$	0.62	0.72
		$I_F=10\text{mA}$	—	0.855
		$I_F=50\text{mA}$	—	1.0
		$I_F=150\text{mA}$	—	1.25
Reverse Current (Note 2)	I_R	$V_R=75\text{V}$	—	2.5
		$V_R=75\text{V}, T_j=150^\circ\text{C}$	—	50
		$V_R=25\text{V}, T_j=150^\circ\text{C}$	—	30
		$V_R=20\text{V}$	—	25
Total Capacitance $V_R=0, f=1.0\text{MHz}$	C_T	—	4.0	pF
Reverse Recovery Time $I_F=I_R=10\text{mA}, I_{rr}=0.1I_R, R_L=100\text{ Ohms}$	t_{rr}	—	4.0	nS

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

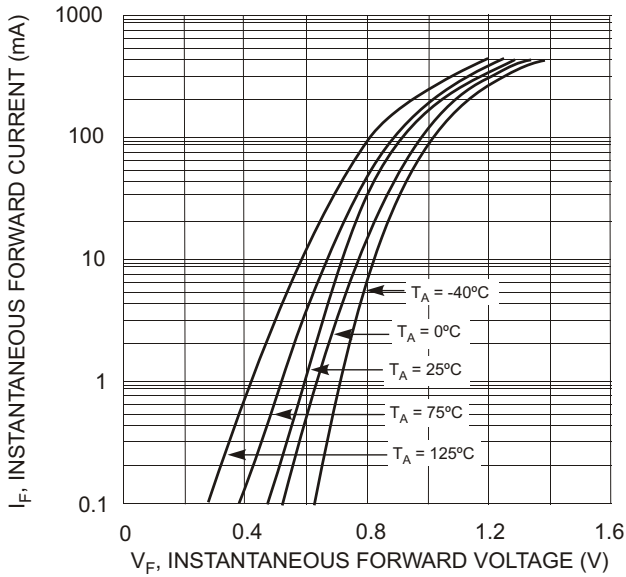


Fig. 1 Typical Forward Characteristics

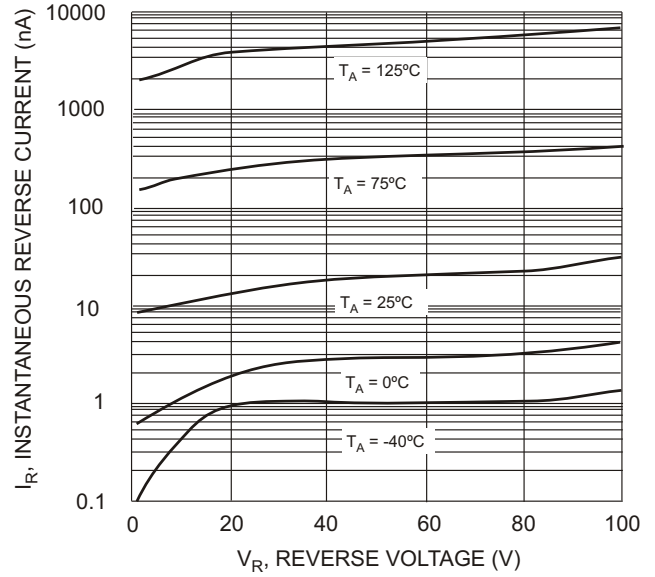


Fig. 2 Typical Reverse Characteristics

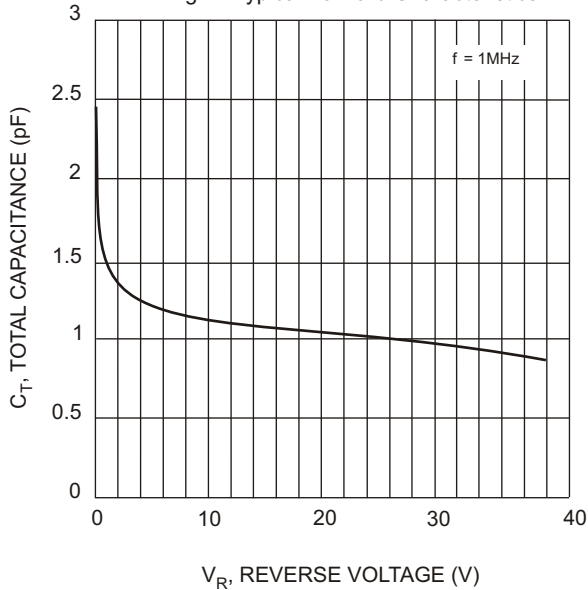


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

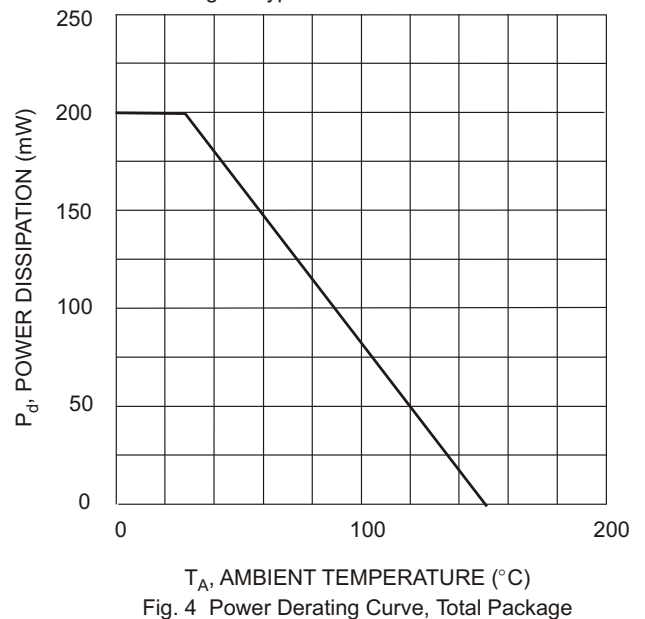


Fig. 4 Power Derating Curve, Total Package

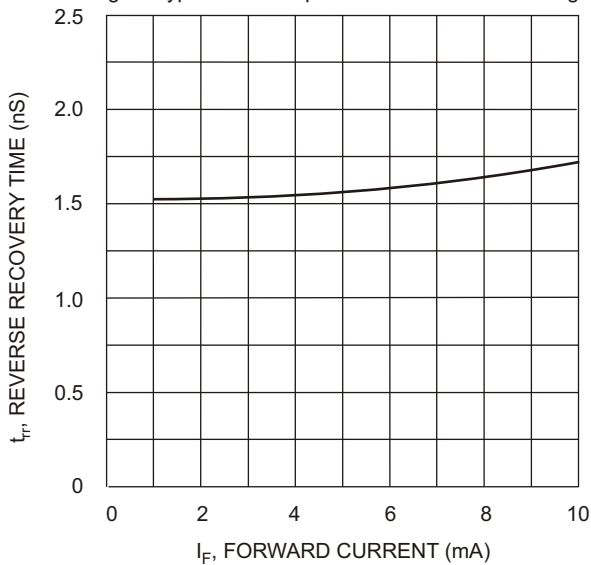


Fig. 5 Reverse Recovery Time vs Forward Current.