

MMBD4148, MMBD4448

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SWITCHING DIODES

VOLTAGE - 100 Volts

CURRENT - 0.15 Ampere

FEATURES

- * Low power loss, high efficiency
- * Low leakage
- * Low forward voltage drop
- * High speed switching
- * High current capability
- * High reliability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- * Polarity: See diagram
- * Mounting position: Any
- * Weight: 0.008 grams Approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

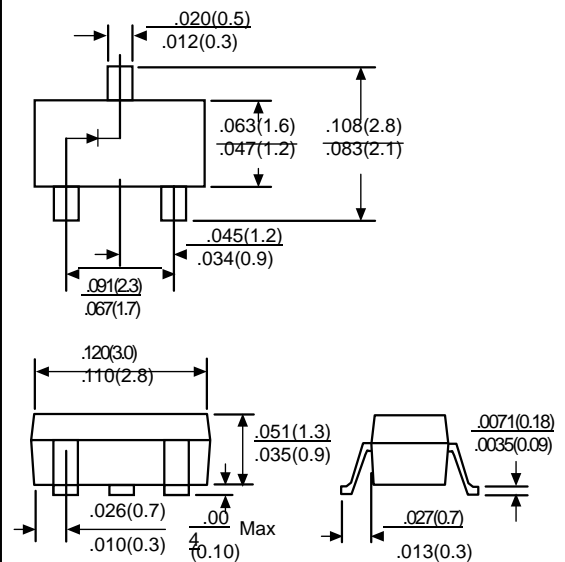
Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.



SOT-23



	SYMBOL	MMBD4148	MMBD4448	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM		100	V
Maximum Average Rectified Current	Io		150	mA
Peak Forward Surge Current IFSM(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	2.0	4.0	A
Maximum Power Dissipation Tamb=25°C	Ptot		350	mW
Maximum Forward Voltage	VF	1.0 @ IF=10mA	0.72 @ IF=5mA	V
Maximum Reverse Current @VR=75V	IR		2.5	μA
Maximum Reverse Recovery Time(NOTE 1)	trr		4.0	nS
Typical Junction Capacitance(NOTE 2)	CJ		4.0	pF
Typical Thermal Resistance	RθJA		357	°C/W
Operating and Storage Temperature Range	TJ,TSTG		-55 to +125	°C

NOTE: 1. Test conditions: IF=IR=10mA, VR=6V, RL=100Ω, measured at IRR=1mA
 2. Measured at 1.0MHz and VR=0

RATING AND CHARACTERISTIC CURVES (MMBD4148, MMBD4448)

FIG.1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

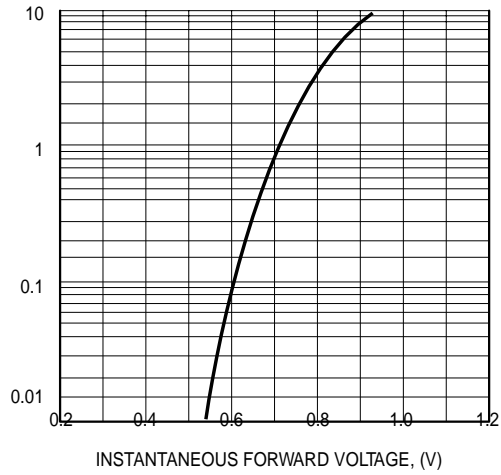


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

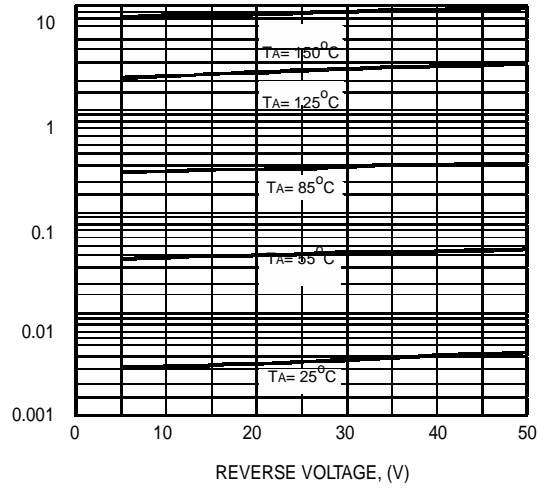


FIG.3 - TYPICAL JUNCTION CAPACITANCE

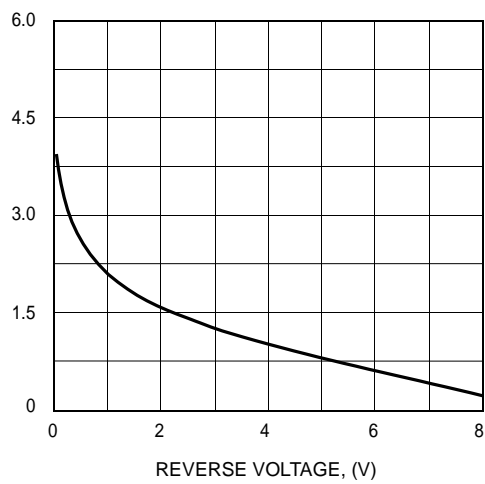


FIG.4 - RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

