



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

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

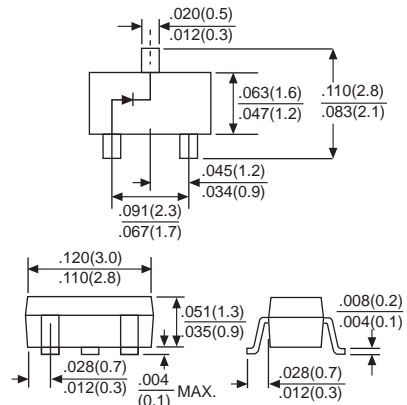
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- * Polarity: See diagram
- * Mounting position: Any
- * Weight: 0.008 grams Approx.

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



Dimensions in inches and (millimeters)

	SYMBOL	MMBD4148	MMBD4448	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}		100	V
Maximum Average Rectified Current	I _o		150	mA
Peak Forward Surge Current I _{FSM} (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	2.0	4.0	A
Maximum Power Dissipation T _{amb} =25°C	P _{tot}		250	mW
Maximum Forward Voltage	V _F	1.0 @ I _F =50mA	0.72 @ I _F =5mA	V
Maximum Reverse Current @V _R =75V	I _R		2.5	µA
Maximum Reverse Recovery Time(NOTE 1)	t _{rr}		4.0	nS
Typical Junction Capacitance(NOTE 2)	C _J		4.0	pF
Typical Thermal Resistance	R _{θJA}		357	°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}		-55 to +125	°C

NOTE: 1. Test conditions: I_F=I_R=10mA, V_R=6V, R_L=100Ω, measured at I_{RR}=1mA
 2. Measured at 1.0MHz and V_R=0

RATING AND CHARACTERISTIC CURVES (MMBD4148, MMBD4448)

FIG.1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

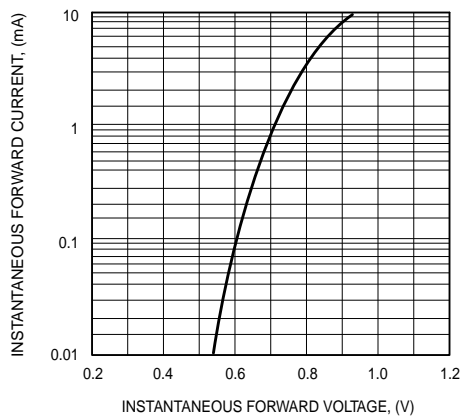


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

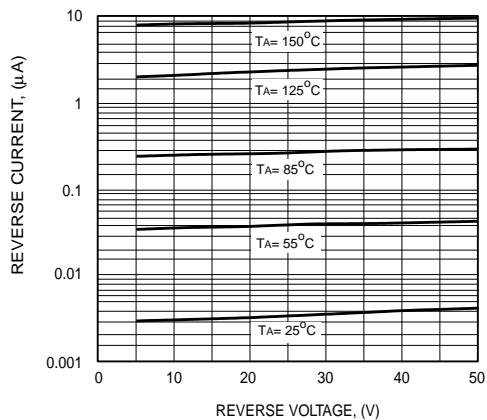


FIG.3 - TYPICAL JUNCTION CAPACITANCE

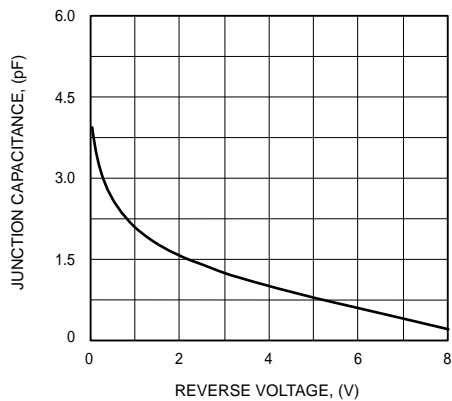
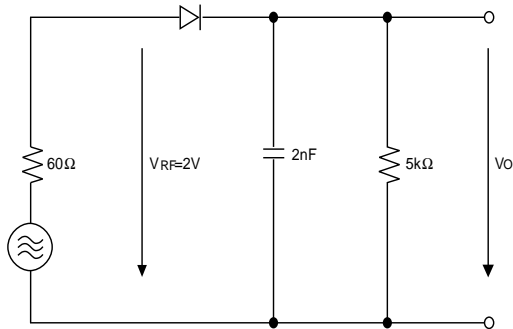


FIG.4 - RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT



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