



DATA SHEET

MMBD4148/MMBD4448/BAS16

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100 Volts **POWER** 250mWatts

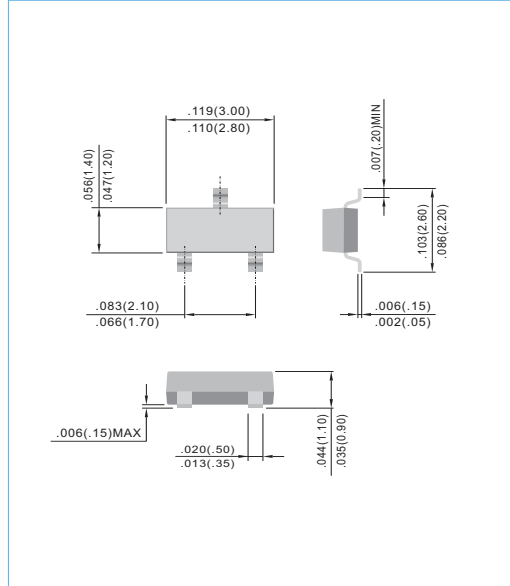
SOT-23 Unit: inch (mm)

FEATURES

- Fast switching Speed.
- Electrically Identical to Standard JEDEC
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion.
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

MECHANICAL DATA

Case: SOT-23 plastic case.
Terminals : Solderable per MIL-STD-202, Method 208
Standard packaging: 8mm tape
Weight: approximately 0.008g

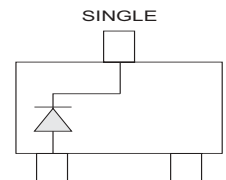


MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_J=25°C unless otherwise noted)

PARAMETER	SYMBOL	MMBD 4148	MMBD 4448	BAS 16	UNITS
Marking Code		A 2	A 3	A 6	
Reverse Voltage	V _R	75			V
Peak Reverse Voltage	V _{RM}	100			V
RMS Voltage	V _{RMS}	50			V
Maximum DC Blocking Voltage	V _{DC}	75			V
Maximum Average Forward Current at Ta=25°C	I _{AV}	150			mA
Peak Forward Surge Current, 1.0us	I _{FSM}	2	4	2	A
Power Dissipation Derate Above 25°C	P _{TOT}	250			mW
Maximum Forward Voltage	V _F	0.715@ 0.001A 0.855@ 0.01A 1.0@ 0.05A 1.25@ 0.15A	0.72 / 0.005A 1.0 / 0.1A	0.855 / 0.01A	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T _J = 25°C	I _R	0.025@ 20V 2.5@ 75V	2.5@ 75V	1.0@ 75V	uA
Junction Capacitance (Notes1)	C _J	1.5	4.0	2.0	pF
Maximum Reverse Recovery (Notes2)	T _{RR}	4.0	4.0	6.0	ns
Maximum Thermal Resistance	R _{θJA}	357			°C / W
Storage Temperature Range	T _J	-55 to +150			°C

NOTE:

1. C_J at V_R=0, f=1MHZ
2. From I_F=10mA to I_R=1mA, V_R=6Volts, R_L=100Ω



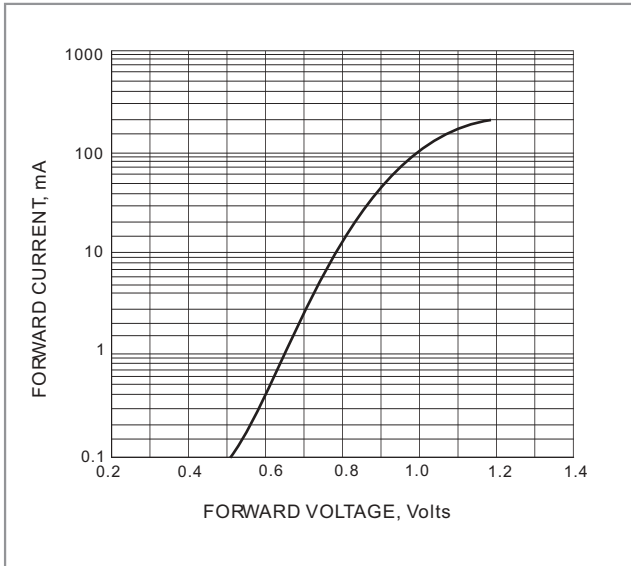


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

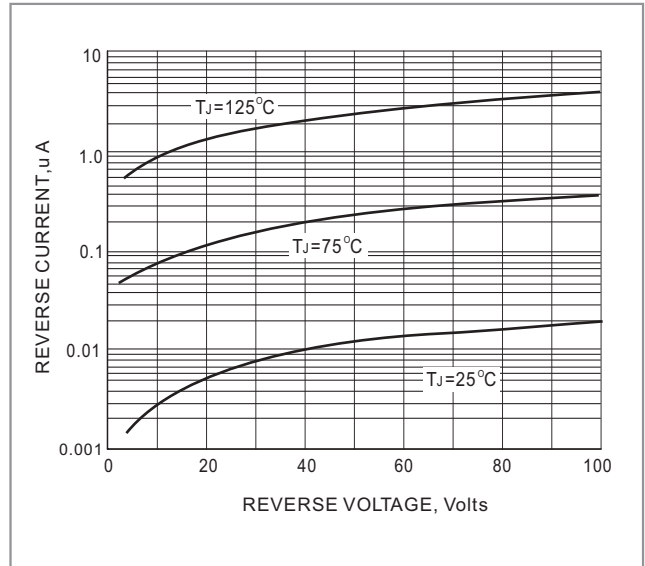


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

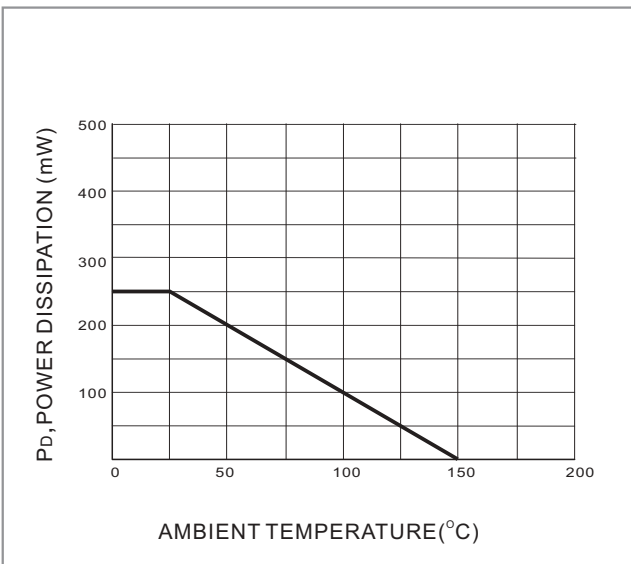


FIG. 3 POWER DERATING CURVE