

# Surface Mount Switching Diodes

## MMBD4148TS-G (RoHS Device)

Voltage: 100V

Power: 200mW

### FEATURES

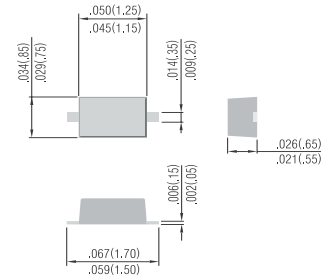
- Fast switching Speed.
- Electrically Identical to Standard JEDEC
- Surface Mount Package Ideally Suited for Automatic Insertion.
- Pb free product are available : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

Case: SOD-523 plastic case.  
Terminals : Solderable per MIL-STD-750, Method 2026  
Standard packaging: 8mm tape  
Marking Code: A2



SOD-523



Unit: inch (mm)

### ABSOLUTE RATINGS (T<sub>A</sub>=25°C, unless otherwise noted)

PARAMETER	SYMBOL	MMBD4148TS	UNITS
Reverse Voltage	V <sub>R</sub>	75	V
Peak Reverse Voltage	V <sub>RRM</sub>	100	V
RMS Voltage	V <sub>RMS</sub>	50	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	75	V
Maximum Average Forward Current at T <sub>A</sub> =25 °C	I <sub>F(AV)</sub>	150	mA
Peak Forward Surge Current, 1.0 μs	I <sub>FSM</sub>	2	A
Power Dissipation Derate Above 25 °C	P <sub>TOT</sub>	200	mW
Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature Range	T <sub>STG</sub>	-40 to 125	°C

### THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	MMBD4148TS	UNITS
Maximum Thermal Resistance	R <sub>WA</sub>	635	°C / W

#### NOTE:

1. C<sub>J</sub> at V<sub>R</sub>=0, f=1MHZ
2. From I<sub>F</sub>=10mA to I<sub>R</sub>=1mA, V<sub>R</sub>=6Volts, R<sub>L</sub>=100Ω

“-G” suffix designates RoHS compliant Version

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## MMBD4148TS-G (RoHS Device)

### ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$ , unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	VALUE	UNITS
Maximum Forward Voltage	$V_F$	$I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$	0.715 0.855 1.00 1.25	V
Reverse Leakage Current	$I_R$	$V_R=20\text{V}$ $V_R=75\text{V}$	0.025 2.5	$\mu\text{A}$
Maximum Total Capacitance	$C_T$	$V_R=0\text{V}$ , $f=1\text{MHz}$	1.5	pF
Maximum Reverse Recovery Time	$t_{rr}$	$I_F=10\text{mA}$ , $I_R=1\text{mA}$ $V_R=6\text{V}$ , $R_L=100\Omega$	4	ns

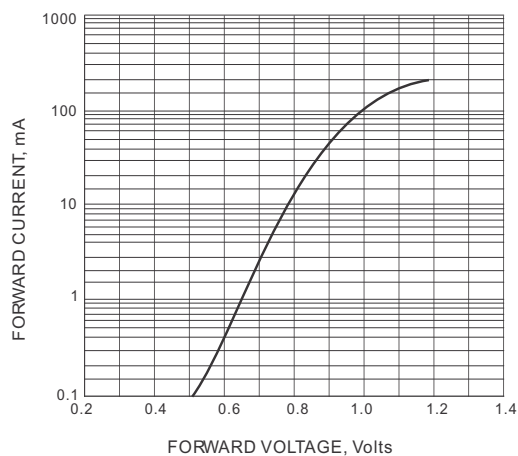


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

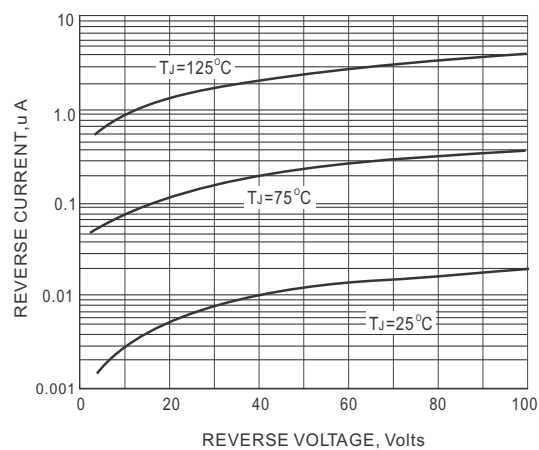


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

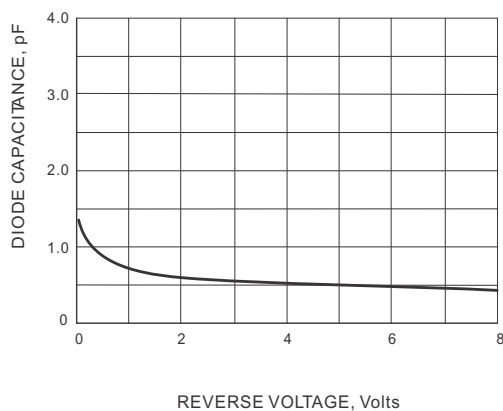


FIG. 3 TYPICAL JUNCTION CAPACITANCE

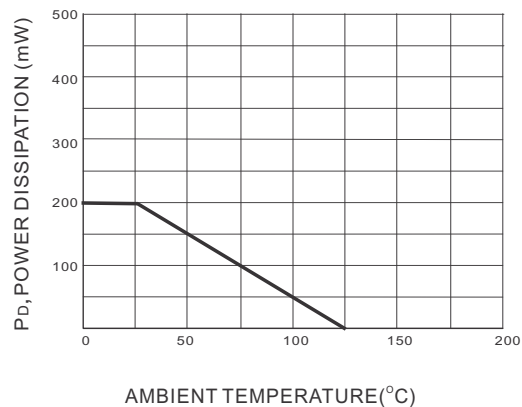


FIG. 4 POWER DERATING CURVE

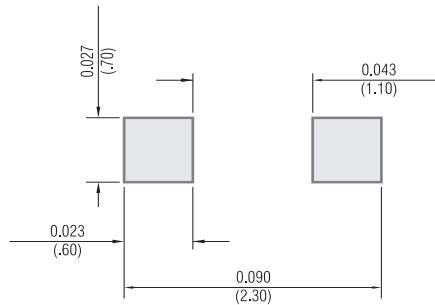
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## MOUNTING PAD LAYOUT

SOD-523



Unit: inch (mm)

## ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 5K per 7" plastic Reel