



# MMBD4148TS!5 I

## SURFACE MOUNT SWITCHING DIODES

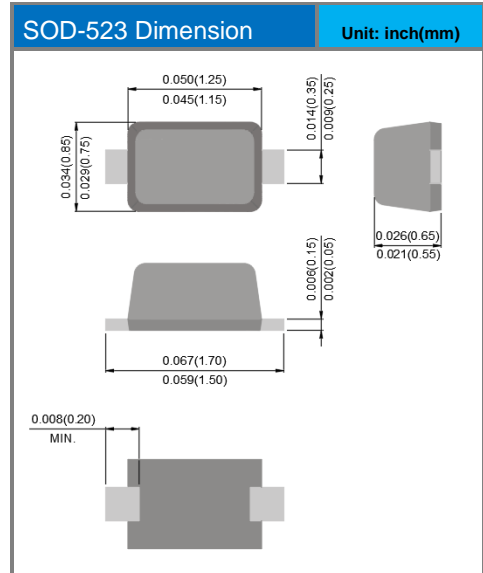
**VOLTAGE** 100 Volt **POWER** 200mWatt

### FEATURES

- Fast switching Speed.
- Electrically Identical to Standard JEDEC
- Surface Mount Package Ideally Suited for Automatic Insertion.
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case : SOD-523 plastic case.
- Terminals : Solderable per MIL-STD-750, Method 2026
- Standard packaging : 8mm tape
- Approx. Weight : 0.00005 ounces, 0.0014 grams



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

PARAMETER	SYMBOL	VALUE	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>	4	A
Power Dissipation Derate Above 25 °C	P <sub>TOT</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to 150	°C

### THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNITS
Typical Thermal Resistance	R <sub>θJA</sub>	635	°C / W



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## 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

### TYPICAL CHARACTERISTIC CURVES

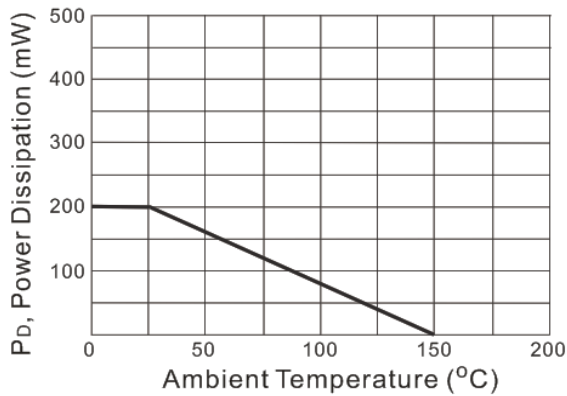


Fig.1 Power Derating Curve

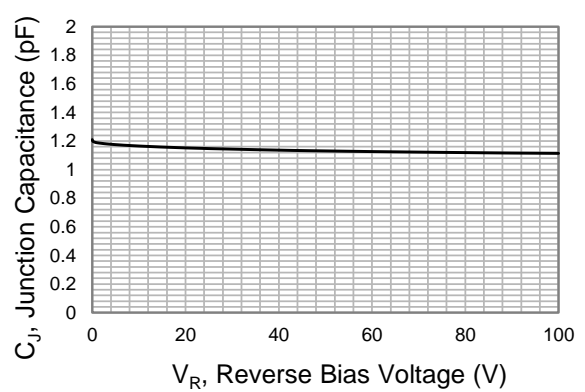


Fig.2 Typical Junction Capacitance

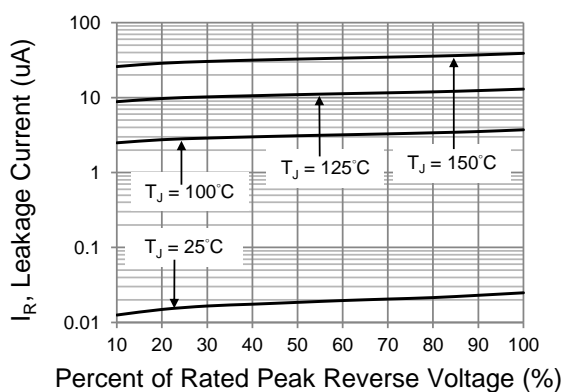


Fig.3 Typical Reverse Characteristics

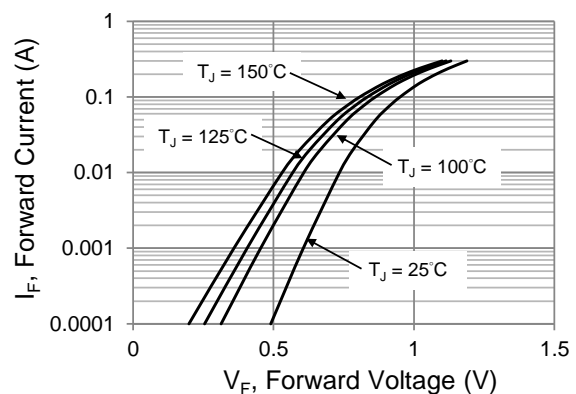


Fig.4 Typical Forward Characteristics

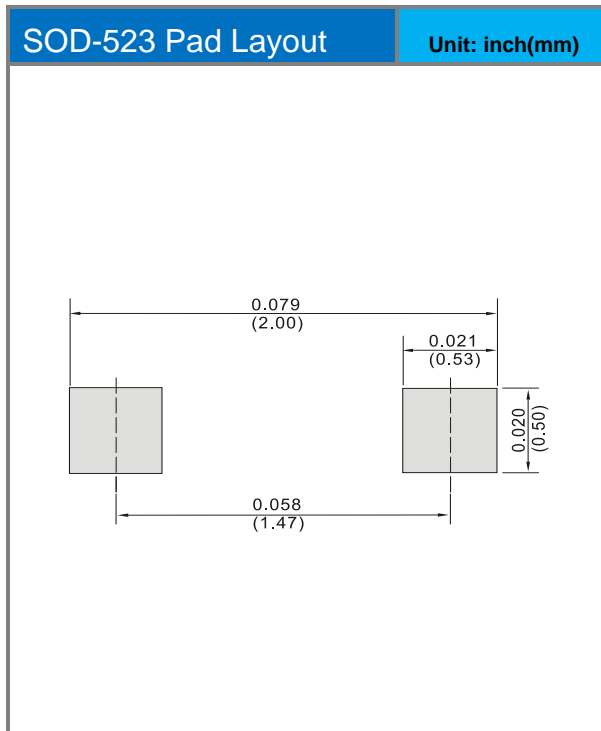


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## Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
MMBD4148TS-AU_R1_000A1	SOD-523	5K pcs / 7" reel	A2	Halogen free RoHS compliant

## Mounting Pad Layout





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