



# MMBD4148TS

## SURFACE MOUNT SWITCHING DIODES

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

**SOD-523**

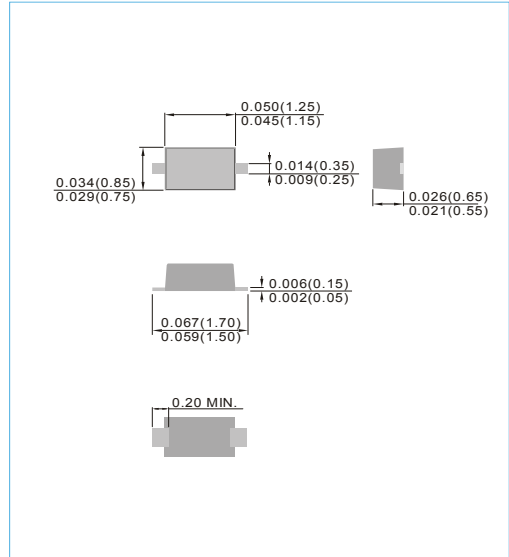
Unit : inch(mm)

### FEATURES

- Fast switching Speed.
- Electrically Identical to Standard JEDEC
- Surface Mount Package Ideally Suited for Automatic Insertion.
- 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 : 0.0001 ounces, 0.0014 grams
- Marking Code: A2



### 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

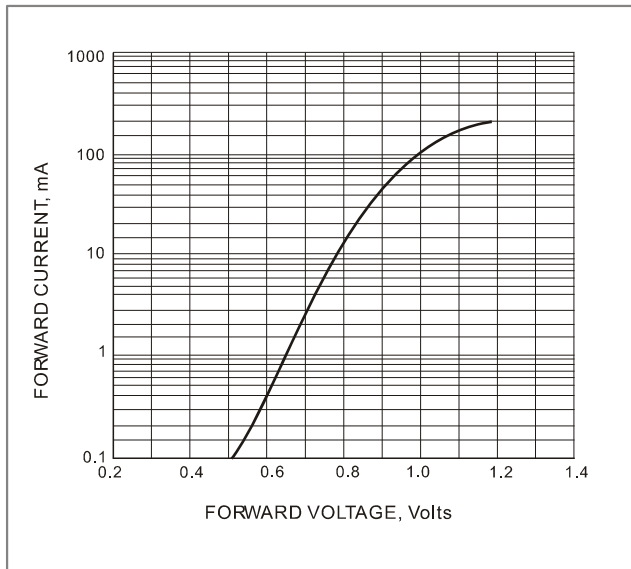


FIG. 1 TYPICAL FORWARD CHARACTERISTIC

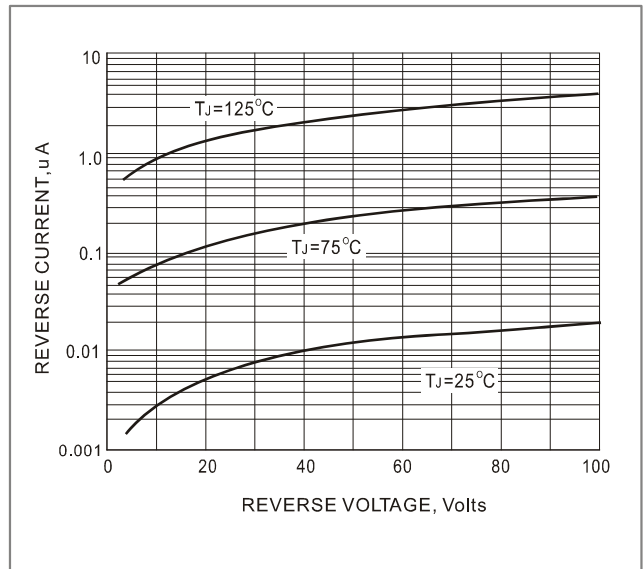


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

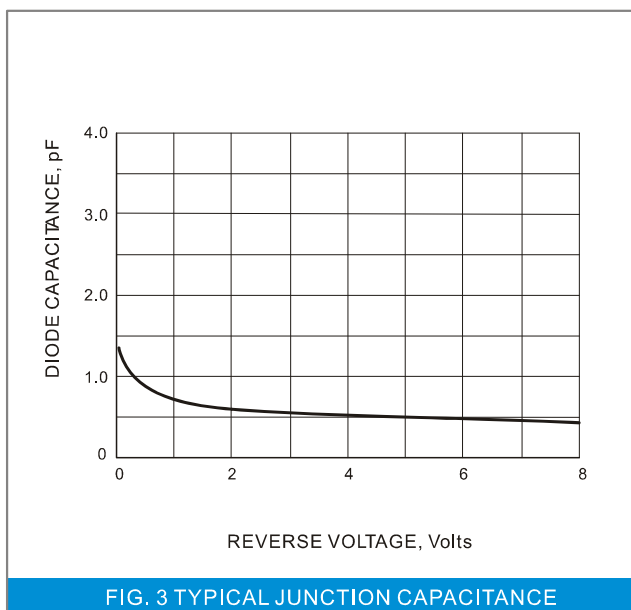


FIG. 3 TYPICAL JUNCTION CAPACITANCE

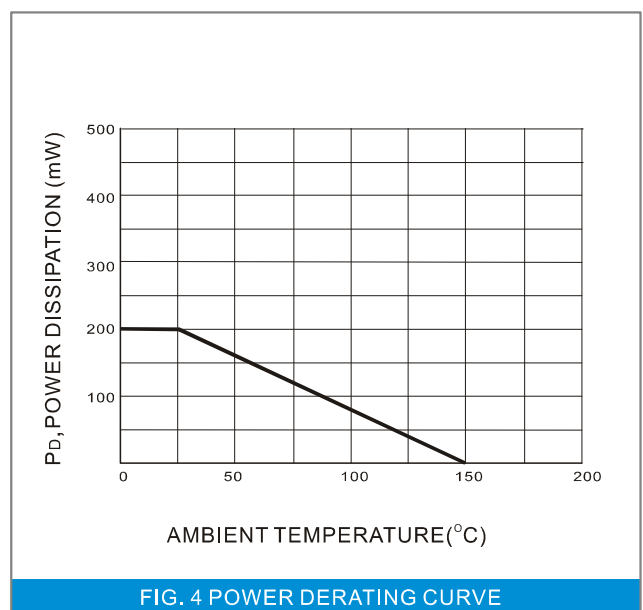
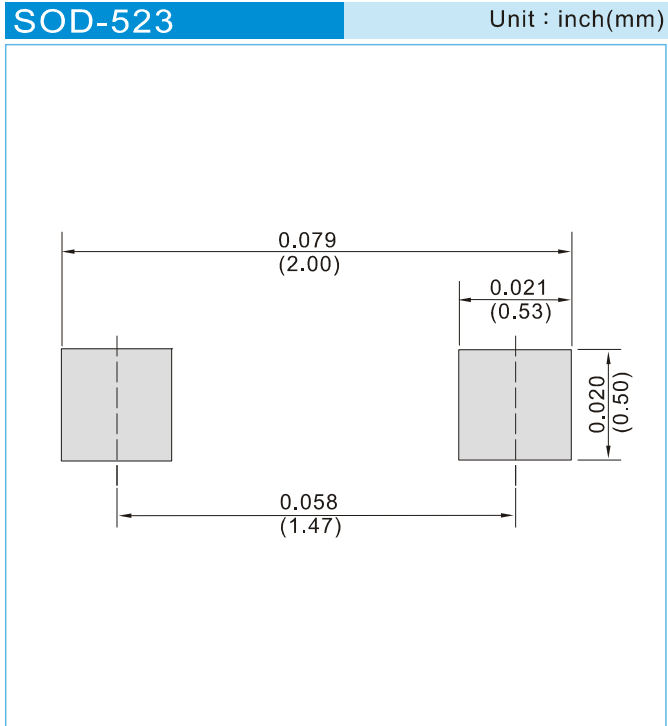


FIG. 4 POWER DERATING CURVE



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### MOUNTING PAD LAYOUT



### ORDER INFORMATION

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



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## Part No\_packing code\_Version

MMBD4148TS\_R1\_00001

MMBD4148TS\_R2\_00001

For example :

**RB500V-40** **R2** **00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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