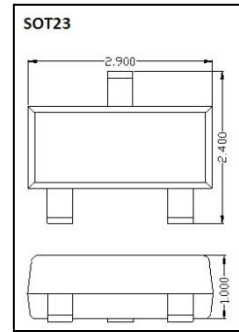


DATA SHEET

MMBD1501 THRU MMBD1505

- ◇ Fast Switching Speed
- ◇ Operating and storage junction temperature range $-65\text{ }^{\circ}\text{C}$ To $150\text{ }^{\circ}\text{C}$
- ◇ Small Outline Surface Mount Package
- ◇ RoHS compliant / Green EMC
- ◇ Epoxy meets UL 94 V-0 flammability rating

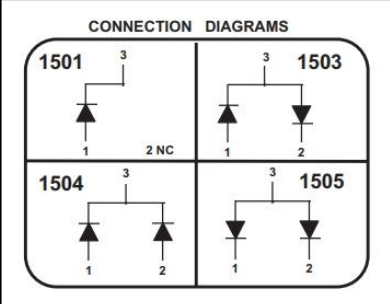


MAXIMUM RATINGS ($T_a = 25\text{ }^{\circ}\text{C}$)

Symbol	Parameter	Value	Units
V_{IV}	Working Inverse Voltage	180	V
I_{FM}	Forward DC Current	600	mA
I_o	Average Rectified Current	200	mA
i_f	Recurrent Peak Forward Current	700	mA
$R_{\theta JA}$	Thermal Resistance Junction to Ambient Air	357	$^{\circ}\text{C}/\text{W}$
P_d	Power Dissipation	350	mW
I_{FSM}	Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{s}$ @ $t = 10\text{ms}$	1.0	A
		2.0	A

ELECTRICAL CHARACTERISTICS ($T_a = 25\text{ }^{\circ}\text{C}$)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
V_F	Forward Voltage	$I_F=1.0\text{mA}$	0.62		0.75	V
		$I_F=10\text{mA}$	0.72		0.85	
		$I_F=50\text{mA}$	0.8		0.95	
		$I_F=100\text{mA}$	0.83		1.1	
		$I_F=200\text{mA}$	0.87		1.3	
		$I_F=300\text{mA}$	0.9		1.5	
V_R	Reverse breakdown voltage	$I_R=5.0\mu\text{A}$	200			V
I_R	Reverse voltage leakage current	$V_R=180\text{V}$			10	nA
C_J	Typical Junction Capacitance	$V_R=0\text{V}$, $f=1.0\text{MHz}$		4		pF

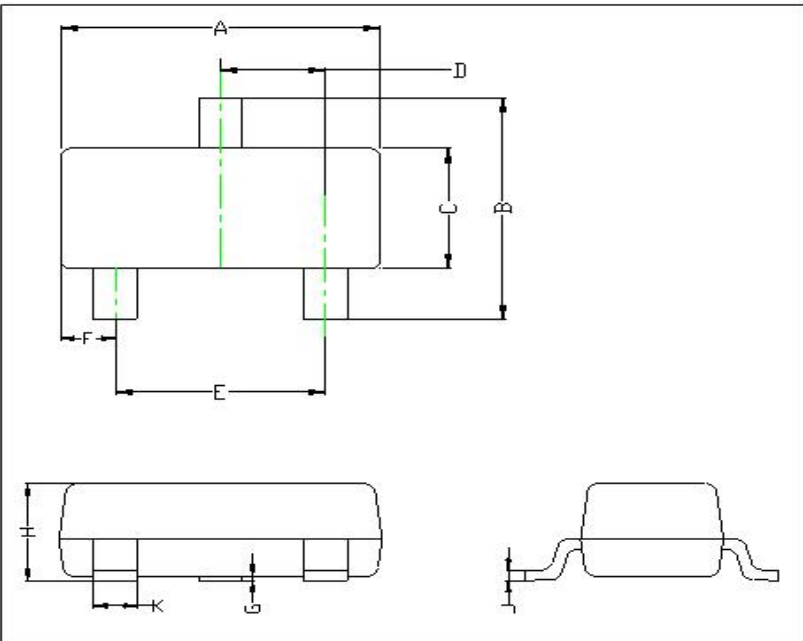
<h3 style="margin: 0;">MARKING</h3> <table style="margin: 10px auto; border-collapse: collapse;"> <tr><td style="padding: 2px 10px;">MMBD1501</td><td style="padding: 2px 10px;">11</td></tr> <tr><td style="padding: 2px 10px;">MMBD1503</td><td style="padding: 2px 10px;">13</td></tr> <tr><td style="padding: 2px 10px;">MMBD1504</td><td style="padding: 2px 10px;">14</td></tr> <tr><td style="padding: 2px 10px;">MMBD1505</td><td style="padding: 2px 10px;">15</td></tr> </table>	MMBD1501	11	MMBD1503	13	MMBD1504	14	MMBD1505	15	<h3 style="margin: 0;">CONNECTION DIAGRAMS</h3> 
MMBD1501	11								
MMBD1503	13								
MMBD1504	14								
MMBD1505	15								

ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
MMBD1501 thru MMBD1504	SOT23	Tape & Reel 3000pcs /7" Reel	8mm	4mm	Conductive	

PACKAGE DIMENSIONS

Package Outline : SOT23



Symbol	Dimensions in mm	
	Min.	Max.
A	2.800	3.040
B	2.100	2.640
C	1.200	1.400
D	0.890	1.030
E	1.780	2.050
F	0.450	0.600
G	0.013	0.100
H	0.900	1.110
J	0.090	0.180
K	0.370	0.510

Note:
 1. Halogen free ,EMC
 2. Pb free solder
 3. Lead thickness solder plating
 4. Lead frame CAC-5
 5. Other Tolerance ± 0.05
 6. Dimensions are exclusive of Burrs Mold Flash and Tie Bar extrusions
 7. Unit :mm

SOT23 Package Outline