



MMBD301/MMBD452

SURFACE MOUNT SCHOTTKY DIODE

VOLTAGE 30 Volts **POWER** 200mWatts

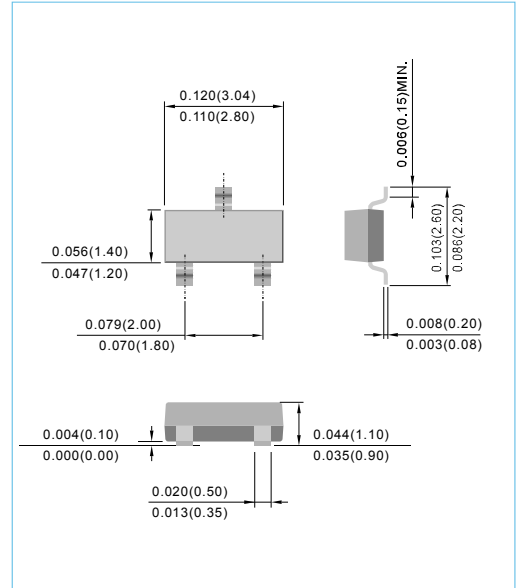
SOT-23 Unit: inch (mm)

FEATURES

- Low Capacitance : 1.5pF(Max)at $V_R=15V$
- Very Low V_F : 0.36V (Typ) at $I_F = 1mA$
- Extremely Fast Switching Speed
- Lead free in comply with EU RoHS 2011/65/EU directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOT-23 plastic case.
- Terminals : Solderable per MIL-STD-750,Method 2026
- Standard packaging: 8mm tape
- Weight: approximately 0.0084gram



ABSOLUTE RATINGS AND THERMAL CHARACTERISTICS

Parameter	Symbol	MMBD301	MMBD452	Units
Marking Code	-	301	452	-
Maximum Reverse Voltage	V_R	30		V
Peak Reverse Voltage	V_{RRM}	30		V
Maximum Forward Current	I_F	0.2		A
Power Dissipation(Note 1)	P_{TOT}	200		mW
Thermal Resistance , Junction to Ambient (Note 1)	$R_{\theta JA}$	556		°C/W
Junction Temperature Range	T_J	-55 to +125		°C
Storage Temperature Range	T_{STG}	-55 to +150		°C
Circuit Figure	-	SINGLE	SERIES	-

NOTE:

1. FR-4 Board = 70 X 60 X 1mm.

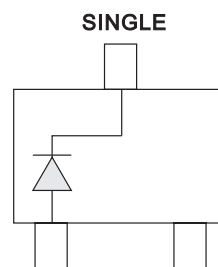


Fig.14

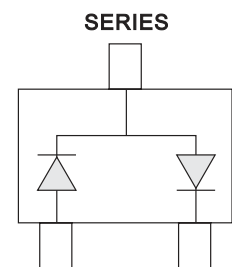


Fig.17



MMBD301/MMBD452

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

PARAMETER	SYMBOL	Test Condition	MIN.	TYP.	MAX.	UNIT
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=10\mu\text{A}$	30			V
Reverse Leakage Current	I_R	$V_R=25\text{V}$			0.2	μA
Forward Voltage	V_F	$I_F=1.0\text{mA}$			0.45	V
Forward Voltage	V_F	$I_F=10\text{mA}$			0.6	V
Total Capacitance	C_J	$V_R=15\text{V}, f=1.0\text{MHz}$			1.5	pF

RATING AND CHARACTERISTIC CURVES

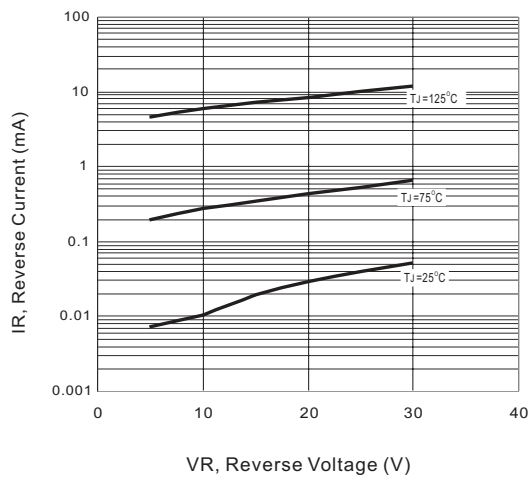


Fig.1 TYPICAL REVERSE CHARACTERISTICS

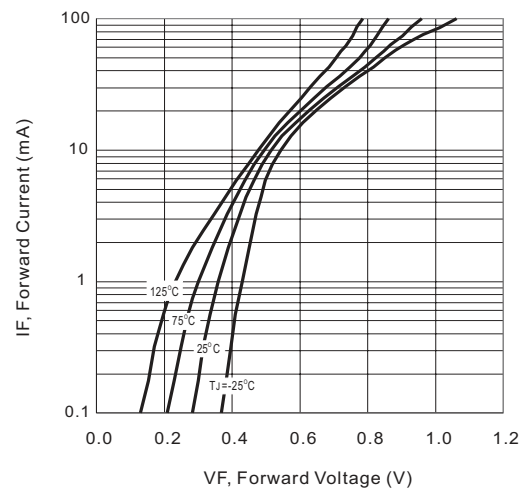


Fig.2-TYPICAL FORWARD CHARACTERISTICS

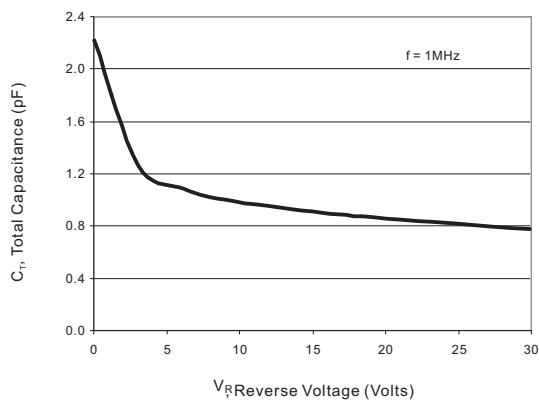
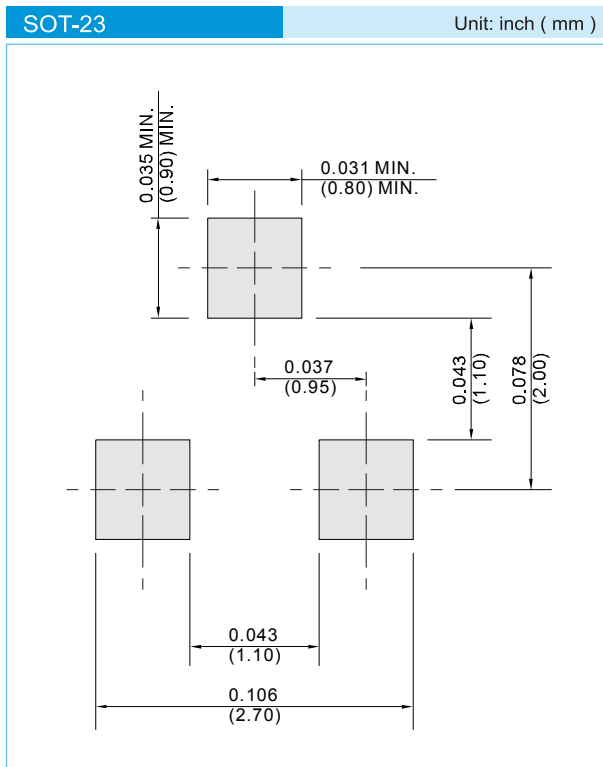


Fig.3 TYPICAL TOTAL CAPACITANCE



MMBD301/MMBD452

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



MMBD301/MMBD452

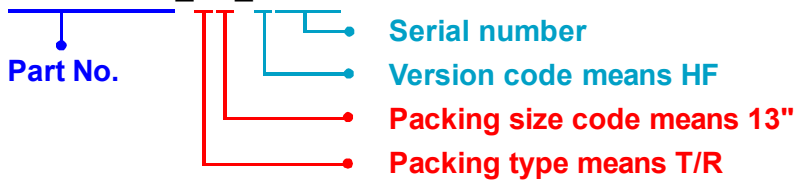
Part No_packing code_Version

MMBD301_R1_00001

MMBD301_R2_00001

For example :

RB500V-40_R2_00001



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



MMBD301/MMBD452

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