



## MMBD701

### SURFACE MOUNT SCHOTTKY DIODE

**VOLTAGE** 70 Volts    **POWER** 180mWatts

SOT-23

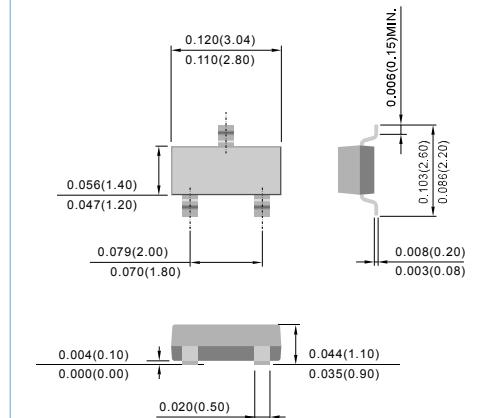
Unit: inch ( mm )

#### FEATURES

- Extremely low minority carrier lifetime
- Low capacitance (0.4pF @ 20V typical)
- Low reverse leakage (30nA @ 35V typical)
- Surface mount package ideally suited for automatic insertion
- Lead free in comply with EU RoHS 2002/95/EC 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
- Weight: approximately 0.0084 gram



#### MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

Parameter	Symbol	MMBD701	Units
Marking Code	-	701	-
Reverse Voltage	$V_R$	70	V
Peak Reverse Voltage	$V_{RRM}$	70	V
Maximum Forward Current	$I_F$	0.25	A
Power Dissipation (1)	$P_{tot}$	180	mW
Thermal Resistance , Junction to Ambient (1)	$R_{\theta JA}$	556	$^{\circ}\text{C}/\text{W}$
Junction Temperature Range	$T_J$	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

#### NOTE:

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

#### SINGLE

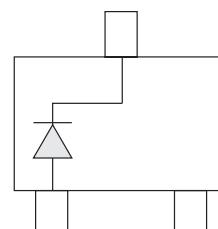


Fig.14



## MMBD701

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	$V_{(\text{BR})}$	$I_R=10\mu\text{A}$	70	-	-	V
Reverse Leakage Current	$I_R$	$V_R=35\text{V}$	-	-	0.2	$\mu\text{A}$
Forward Voltage	$V_F$	$I_F=1.0\text{mA}$	-	-	0.5	V
Forward Voltage	$V_F$	$I_F=10\text{mA}$	-	-	1.0	V
Total Capacitance	$C_J$	$V_R=20\text{V}, f=1.0\text{MHz}$	-	-	1.5	pF

### ELECTRICAL CHARACTERISTICS CURVES

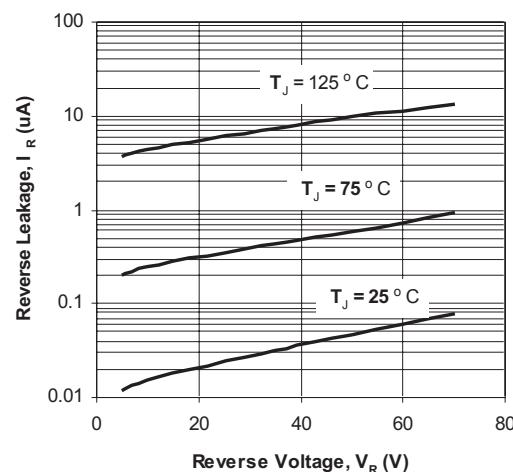


FIG. 1-Typical Reverse Leakage

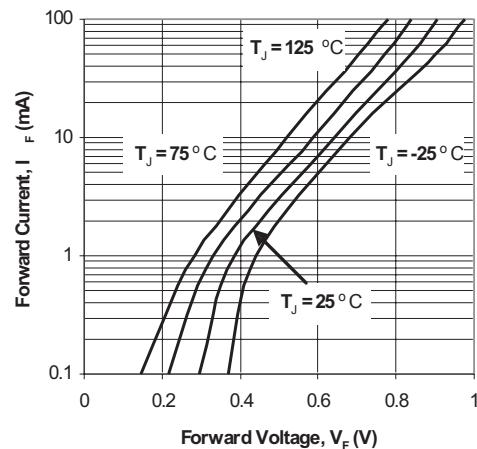


FIG. 2-Typical Forward Voltage

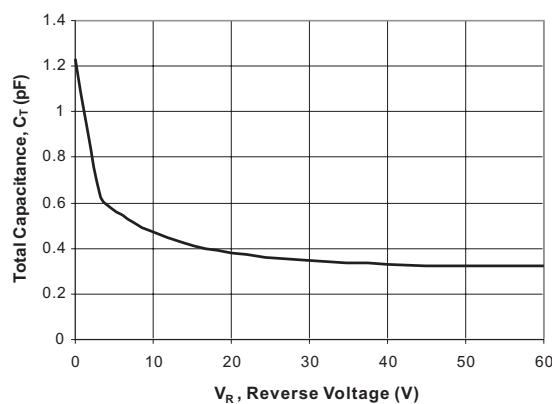
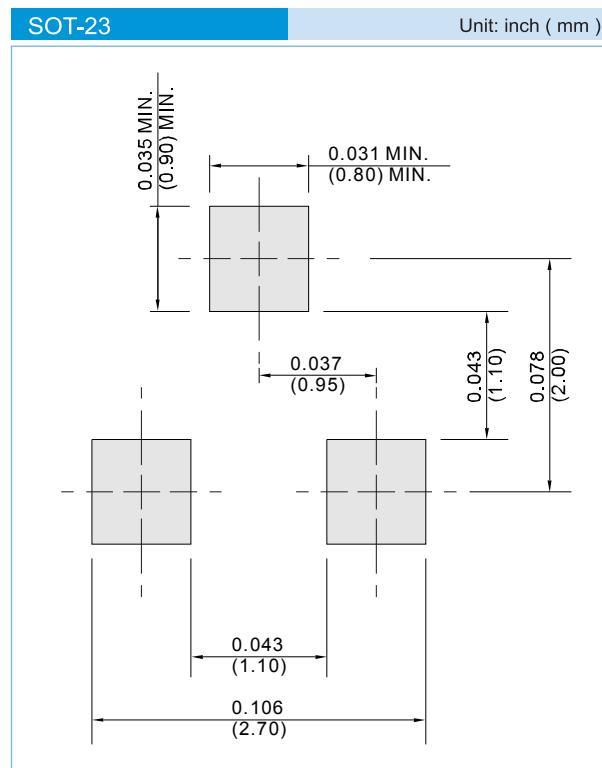


FIG. 3 TYPICAL TOTAL CAPACITANCE



**MMBD701**

## **MOUNTING PAD LAYOUT**



## ORDER INFORMATION

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



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### Part No\_packing code\_Version

MMBD701\_R1\_00001

MMBD701\_R2\_00001

For example :

RB500V-40\_R2\_00001

- Serial number
- Version code means HF
- Packing size code means 13"
- Packing type means T/R

Packing Code XX				Version Code XXXXX		
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)	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			



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