



# MMBV3700

## SURFACE MOUNT PIN DIODE

**VOLTAGE** 200 Volt    **POWER** 200 mW

### FEATURES

- High reverse breakdown voltage (200V min)
- Very low series resistance at 100MHz (0.7Ω typical@ I<sub>F</sub>=10mA)
- Long minority carrier lifetime (T<sub>rr</sub>=300ns typical)
- Low capacitance (0.5 pF typical @V<sub>R</sub>=20V)
- Surface mount package ideally suited for automatic insertion
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

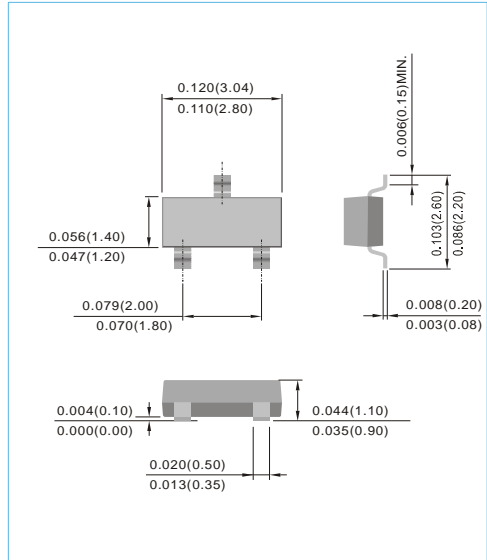
### MECHANICAL DATA

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.0003 ounces, 0.0084 grams

**SOT-23**    Unit : inch(mm)



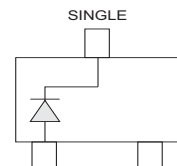
### ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Reverse Voltage	V <sub>R</sub>	200	V
Continuous Forward Current	I <sub>F</sub>	0.2	A

### THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation (1)	P <sub>TOT</sub>	200	mW
Thermal Resistance, Junction to Ambient (1)	R <sub>θJA</sub>	625	°C/W
Junction Temperature	T <sub>J</sub>	-55 to 150	°C
Storage Temperature	T <sub>STG</sub>	-55 to 150	°C

Note 1. FR-5 Board=1x0.75x0.062 in.





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## ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C, unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Breakdown Voltage	V <sub>(BR)</sub>	I <sub>R</sub> =10μA	200	-	-	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =150V	-	-	100	nA
Series Resistance	R <sub>S</sub>	I <sub>F</sub> =10mA, f=100MHz	-	0.7	1.0	Ω
Total Capacitance	C <sub>T</sub>	V <sub>R</sub> =20V, f=1MHz	-	0.7	1.0	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =10mA	-	300	-	ns

### CHARACTERISTIC CURVES

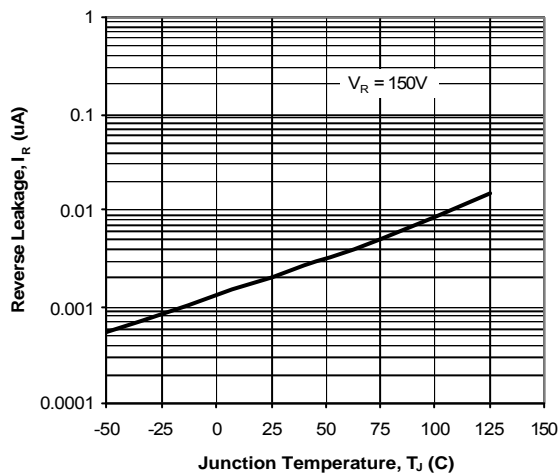


Figure 1. Leakage Current

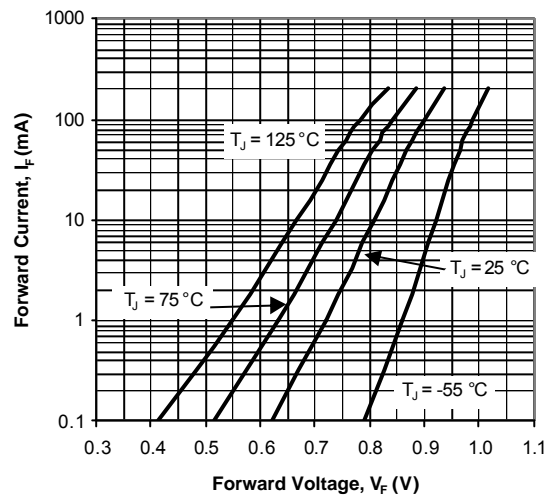


Figure 2. Forward Voltage

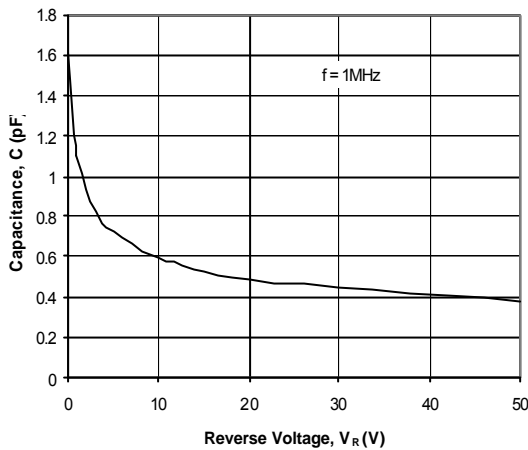


Figure 3. Capacitance

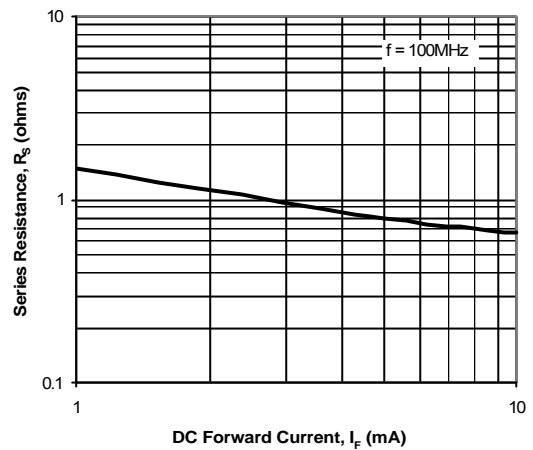


Figure 4. Series Resistance

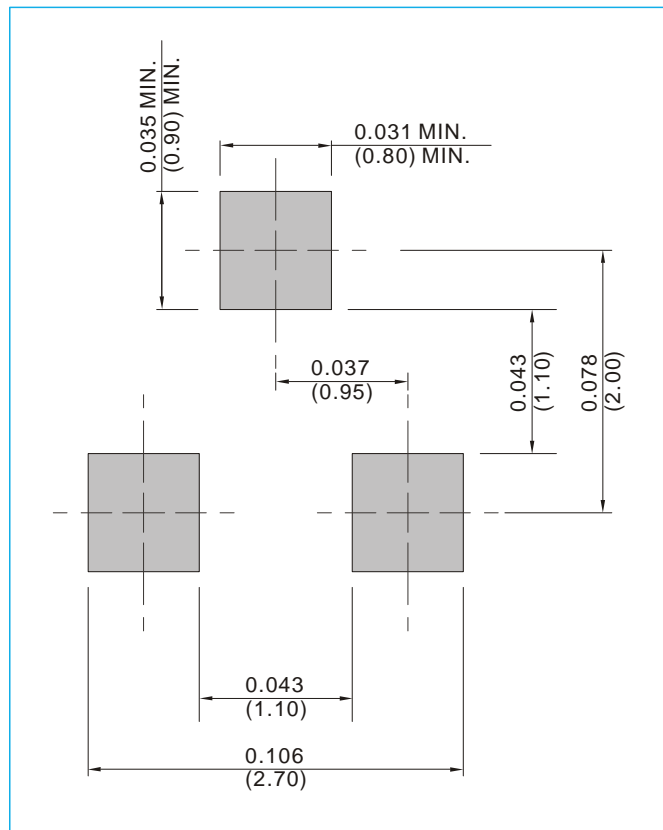


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## MOUNTING PAD LAYOUT

**SOT-23**

Unit : inch(mm)



## 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

MMBV3700\_R1\_00001

MMBV3700\_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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