

# Silicon Pin Diode

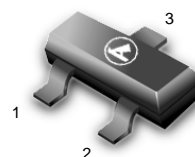
These devices are designed primarily for VHF band switching applications but are also suitable for use in general-purpose switching circuits. They are supplied in a cost-effective plastic package for economical, high-volume consumer and industrial requirements. They are also available in surface mount.

- Long Reverse Recovery Time  
 $t_{rr} = 300 \text{ ns (Typ)}$
- Rugged PIN Structure Coupled with Wirebond Construction for Optimum Reliability
- Low Series Resistance @ 100 MHz —  
 $R_s = 0.7 \text{ Ohms (Typ) @ } I_F = 10 \text{ mAdc}$
- Reverse Breakdown Voltage = 200 V (Min)



**MMBV3700LT1**

**SILICON PIN SWITCHING DIODE**



**CASE 318-08, STYLE8  
SOT- 23 (TO-236AB)**

## MAXIMUM RATINGS(EACH DIODE)

Rating	Symbol	MV21XX	MMBV21XXLT1	Unit
Reverse Voltage	$V_R$	200		Vdc
Device Dissipation @ $T_A = 25^\circ\text{C}$	$P_D$	280	200	mW
Derate above $25^\circ\text{C}$		2.8	2.0	mW/ $^\circ\text{C}$
Junction Temperature	$T_J$	+150		$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150		$^\circ\text{C}$

## DEVICE MARKING

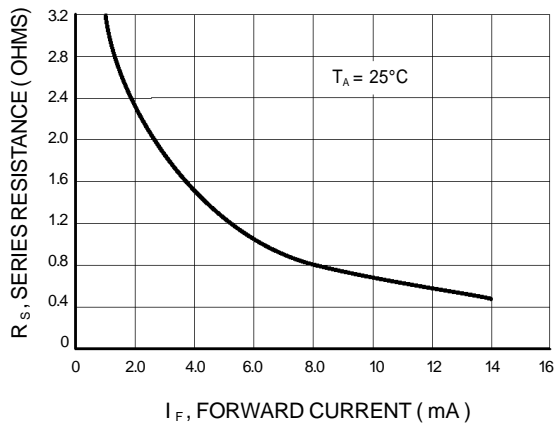
MMBV3700LT1=4R

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

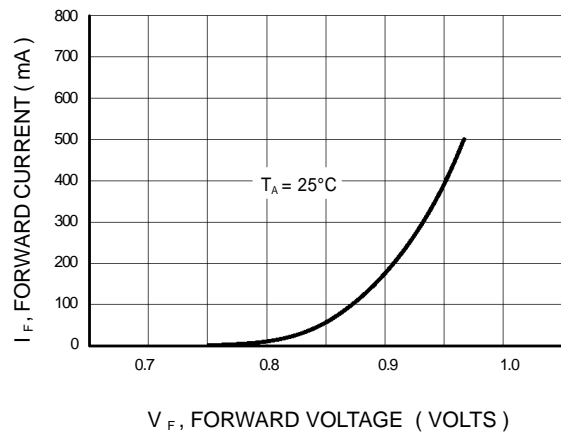
Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage ( $I_R=10\mu\text{Adc}$ )	$V_{(BR)R}$	200	—	—	Vdc
Diode Capacitance ( $V_R=20 \text{ Vdc}, f=1.0\text{MHz}$ )	$C_T$	—	—	1.0	pF
Series Resistance (figure 5) ( $I_F=10\text{mAdc}$ )	$R_s$	—	0.7	1.0	$\Omega$
Reverse Leakage Current ( $V_R=150\text{Vdc}$ )	$I_R$	—	—	0.1	$\mu\text{Adc}$
Reverse Recovery Time ( $I_F=I_R=10\text{mAdc}$ )	$t_{rr}$	—	300	—	ns

**MMBV3700LT1 MPN3700**

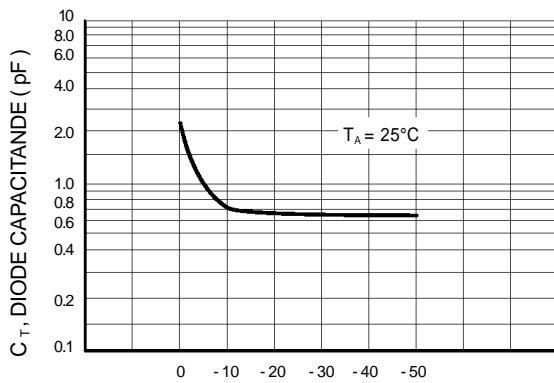
**TYPICAL CHARACTERISTICS**



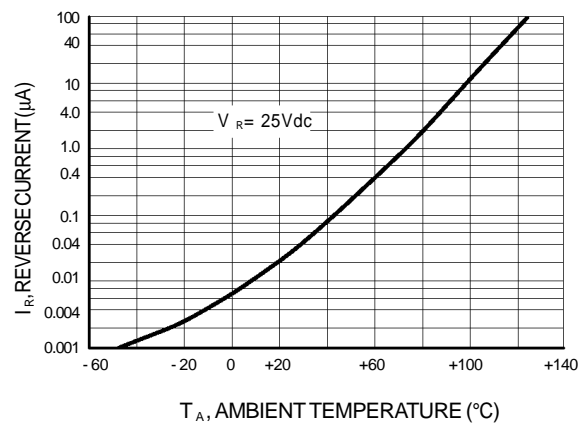
**Figure 1. Series Resistance**



**Figure 2. Forward Voltage**



**Figure 3. Diode Capacitance**



**Figure 4. Leakage Current**