

Silicon Pin Diode

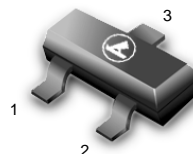
These devices are designed primarily for VHF band switching applications but are also suitable for use in general-purpose switching circuits. They are supplied in a cost-effective plastic package for economical, high-volume consumer and industrial requirements. They are also available in surface mount.

- 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°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	Ω
Reverse Leakage Current ($V_R=150\text{Vdc}$)	I_R	—	—	0.1	μAdc
Reverse Recovery Time ($I_F=I_R=10\text{mAdc}$)	t_{rr}	—	300	—	ns

MMBV3700LT1 MPN3700

TYPICAL CHARACTERISTICS

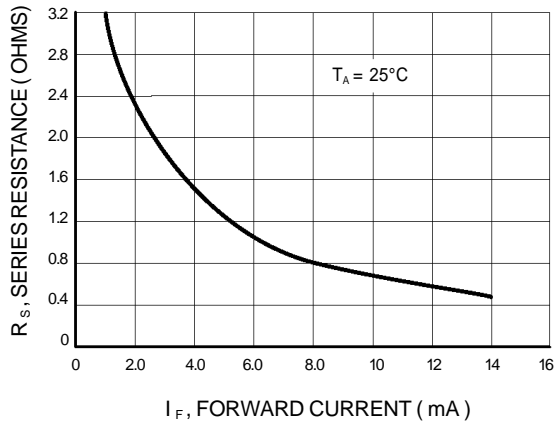


Figure 1. Series Resistance

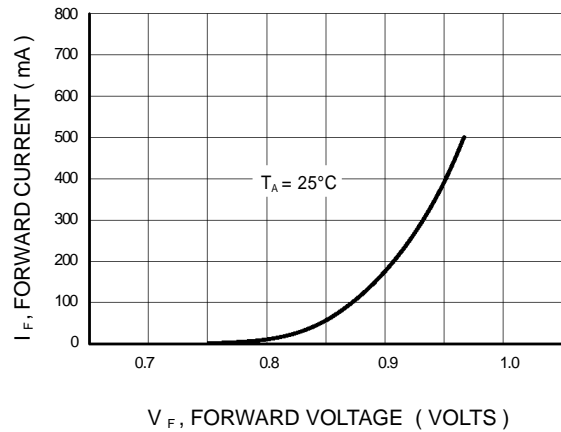


Figure 2. Forward Voltage

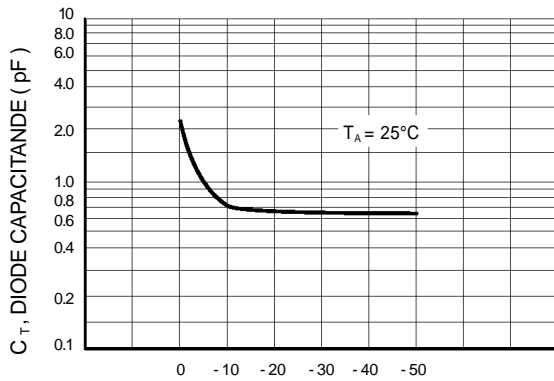


Figure 3. Diode Capacitance

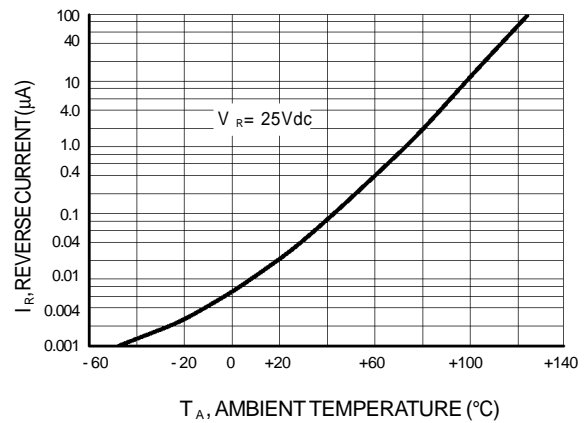


Figure 4. Leakage Current