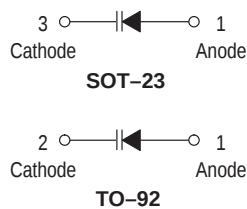


High Voltage Silicon Pin Diodes

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



MAXIMUM RATINGS

Rating	Symbol	MPN3700	MMBV3700LT1	Unit
Reverse Voltage	V_R	200		Vdc
Total Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	280 2.8	200 2.0	mW mW/ $^\circ\text{C}$
Junction Temperature	T_J	+125		$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150		$^\circ\text{C}$

DEVICE MARKING

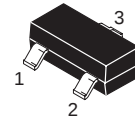
MMBV3700LT1 = 4R

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

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

MMBV3700LT1
MPN3700

SILICON PIN
SWITCHING DIODES



CASE 318-08, STYLE 8
SOT-23 (TO-236AB)



CASE 182-02, STYLE 1
TO-92 (TO-226AC)

TYPICAL CHARACTERISTICS

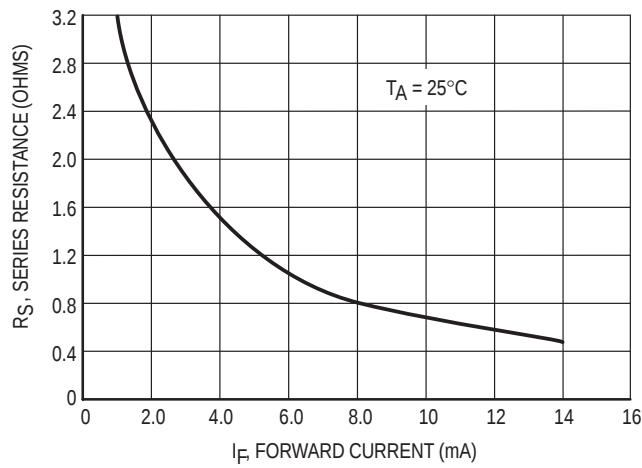


Figure 1. Series Resistance

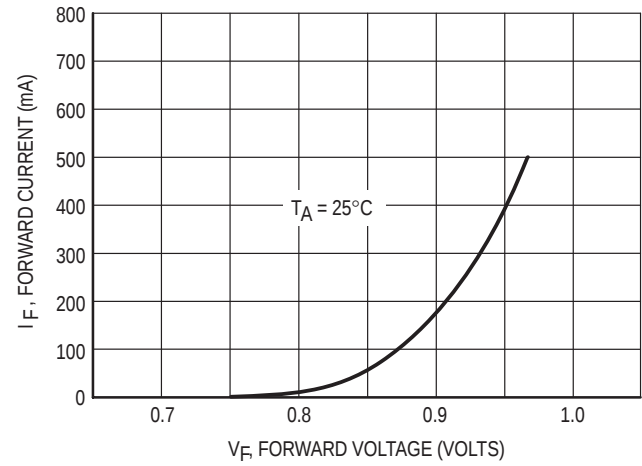


Figure 2. Forward Voltage

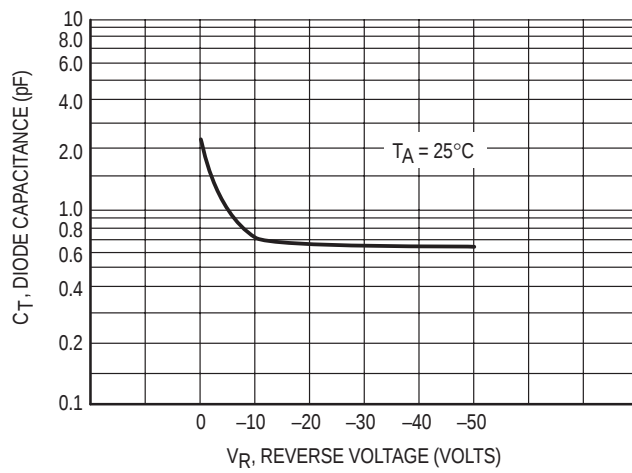


Figure 3. Diode Capacitance

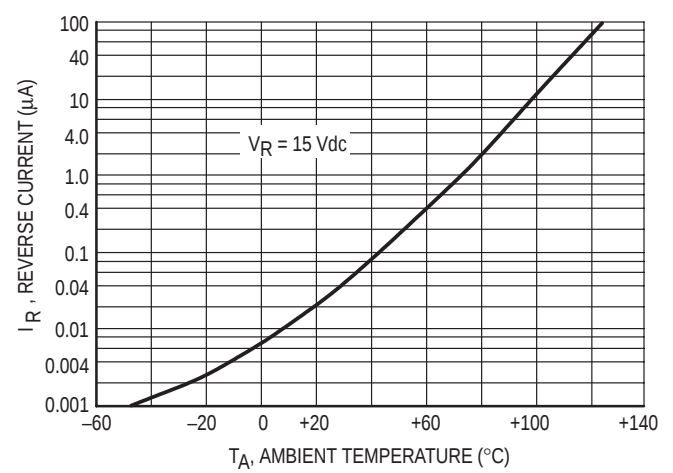


Figure 4. Leakage Current