

Silicon Pin Diode

This device is designed primarily for VHF band switching applications but is also suitable for use in general-purpose switching circuits. It is supplied in a cost-effective TO-92 type plastic package for economical, high-volume consumer and industrial requirements.

- Rugged PIN Structure Coupled with Wirebond Construction for Optimum Reliability
- Low Series Resistance @ 100 MHz — $R_S = 0.7 \text{ Ohms (Typ) @ } I_F = 10 \text{ mAdc}$
- Sturdy TO-92 Style Package for Handling Ease



MPN3404

SILICON PIN
SWITCHING DIODE



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

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	20	Vdc
Forward Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	400 4.0	mW mW/ $^\circ\text{C}$
Junction Temperature	T_J	+125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage ($I_R = 10 \text{ }\mu\text{Adc}$)	$V_{(BR)R}$	20	—	—	Vdc
Diode Capacitance ($V_R = 15 \text{ Vdc}$, $f = 1.0 \text{ MHz}$)	C_T	—	1.3	2.0	pF
Series Resistance (Figure 5) ($I_F = 10 \text{ mAdc}$)	R_S	—	0.7	0.85	Ω
Reverse Leakage Current ($V_R = 15 \text{ Vdc}$)	I_R	—	—	0.1	μAdc

TYPICAL CHARACTERISTICS

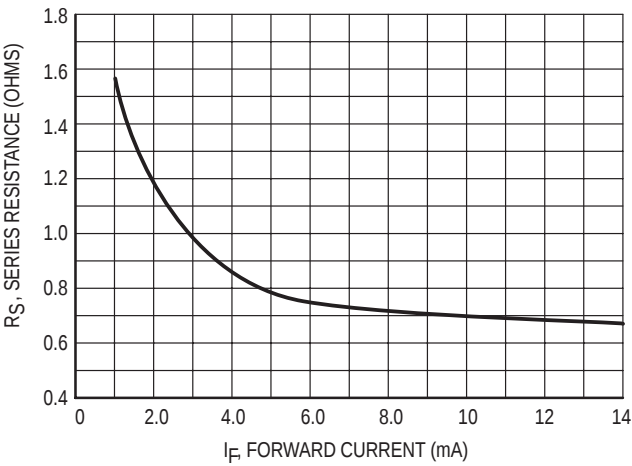


Figure 1. Series Resistance

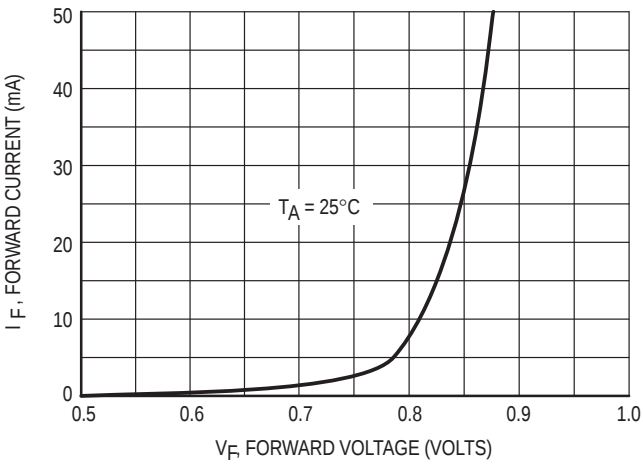


Figure 2. Forward Voltage

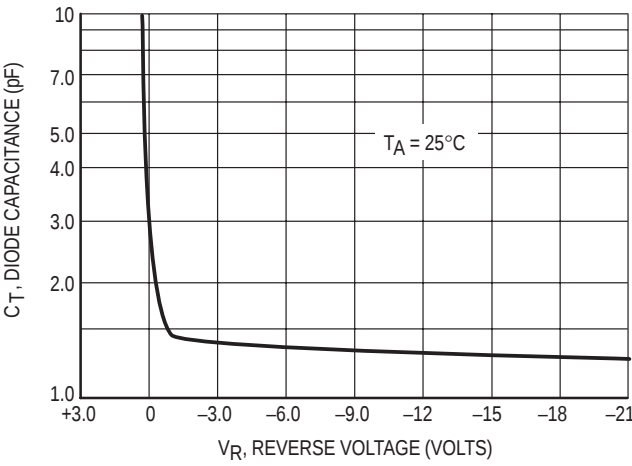


Figure 3. Diode Capacitance

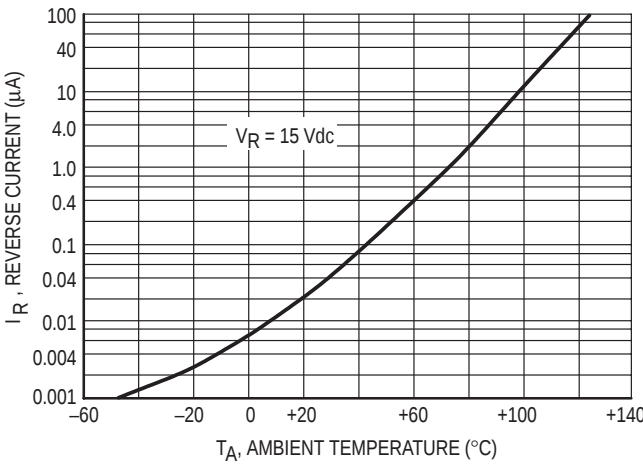


Figure 4. Leakage Current