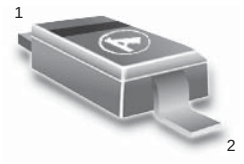
Silicon Pin Diode

MMVL3401T1

SILICON PIN SWITCHING DIODE

This device is designed primarily for VHF band switching applications but is also suitable for use in general–purpose switching circuits. Supplied in a Surface Mount package.

- Rugged PIN Structure Coupled with Wirebond Construction for Optimum Reliability
- Low Capacitance – 0.7 pF Typ at V_R = 20 Vdc
- Very Low Series Resistance at 100 MHz – 0.34 Ohms (Typ) @ I_F = 10 mAdc
- Device Marking: 4D



PLASTIC, CASE 477
SOD– 323

ORDERING INFORMATION

Device	Package	Shipping
MMVL3401T1	SOD–323	3000 / Tape & Reel

MAXIMUM RATINGS

Symbol	Rating	Value	Unit
V_R	Continuous Reverse Voltage	20	Vdc
I_F	Peak Forward Current	20	mAdc

THERMAL CHARACTERISTICS

Symbol	Characteristic	Max	Unit
P_D	Total Device Dissipation FR–5 Board,* T_A = 25°C	200	mW
	Derate above 25°C	1.57	mW/°C
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	635	°C/W
T_J, T_{stg}	Junction and Storage Temperature	150	°C

*FR–4 Minimum Pad

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage (I_R = 10 µAdc)	$V_{(BR)R}$	35	—	—	Vdc
Diode Capacitance (V_R = 20 Vdc)	C_T	—	—	1.0	pF
Series Resistance (I_F = 10 mAdc, f =100MHz)	R_S	—	–	0.7	Ω
Reverse Leakage Current (V_R = 25 Vdc)	I_R	—	—	0.1	µAdc

MMVL3401T1

TYPICAL CHARACTERISTICS

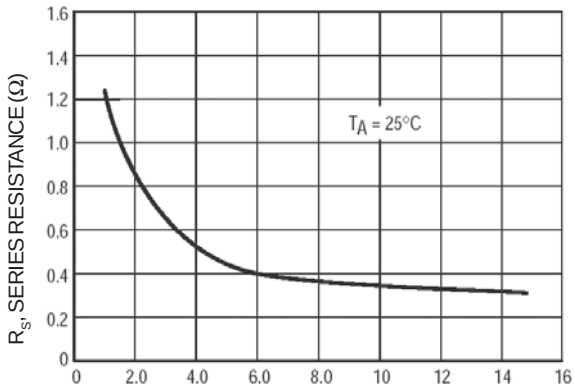


Figure 1. Series Resistance

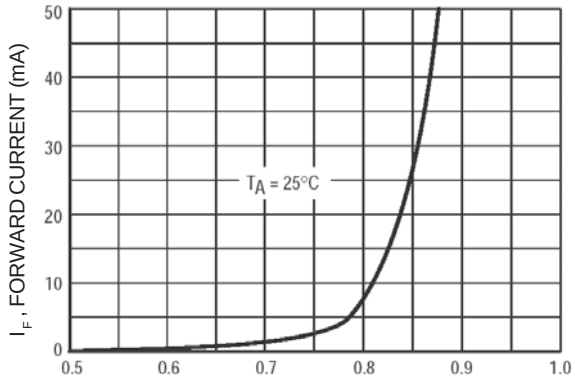


Figure 2. Forward Voltage

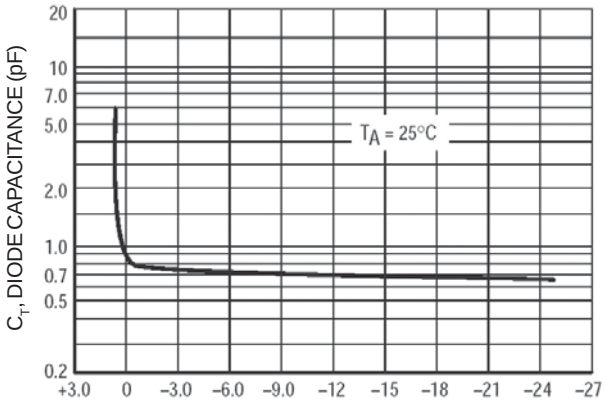


Figure 3. Diode Capacitance

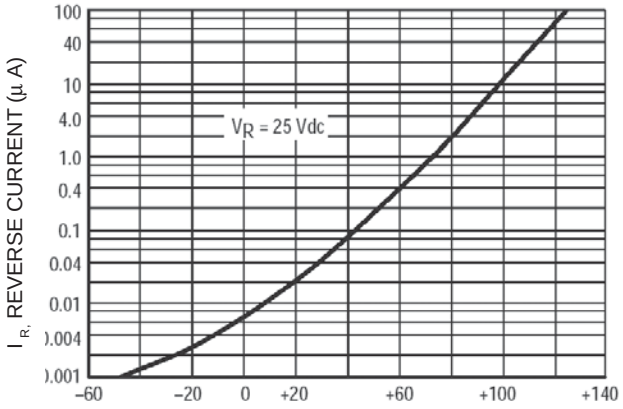


Figure 4. Leakage Current