MMVL3401T1

Preferred Device

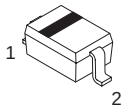
Silicon Pin Diode

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

ON Semiconductor
Formerly a Division of Motorola
http://onsemi.com

SILICON PIN SWITCHING DIODE



PLASTIC SOD–323 CASE 477

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 Derate above 25°C	200 1.57	mW 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

ORDERING INFORMATION

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

Preferred devices are recommended choices for future use and best overall value.

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 (Figure 5) (I_F = 10 mAdc, f = 100 MHz)	R_S	—	—	0.7	Ω
Reverse Leakage Current (V_R = 25 Vdc)	I_R	—	—	0.1	μAdc

TYPICAL CHARACTERISTICS

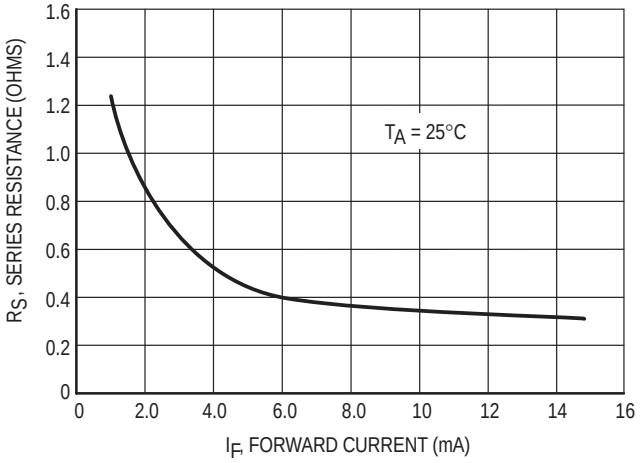


Figure 1. Series Resistance

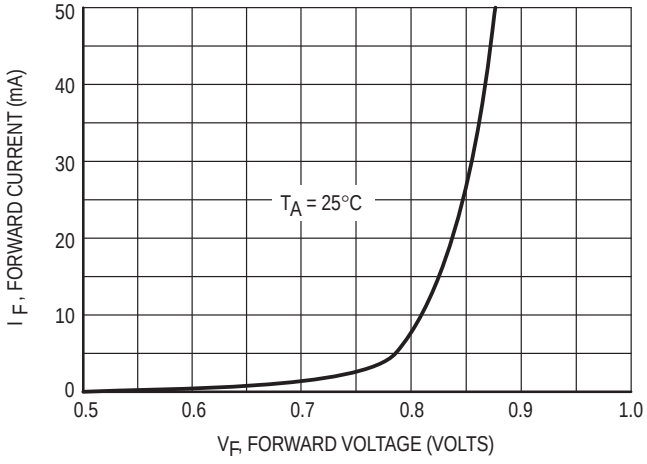


Figure 2. Forward Voltage

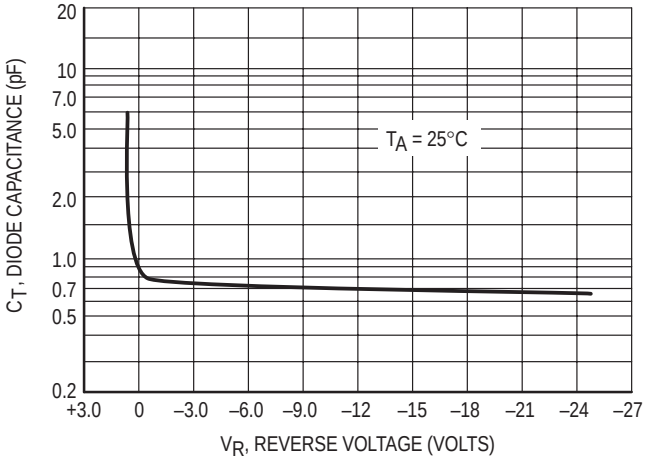


Figure 3. Diode Capacitance

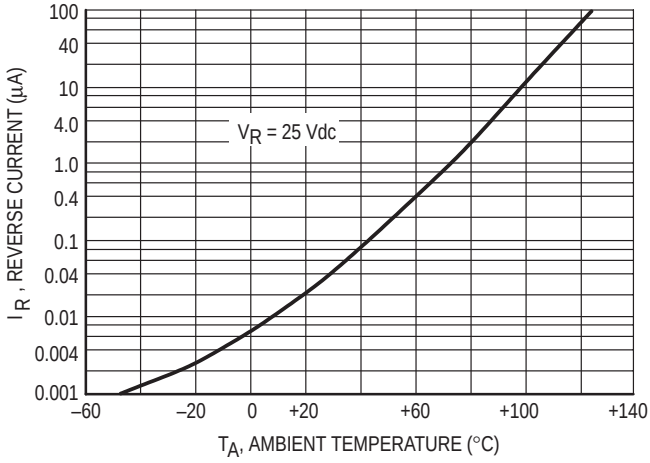
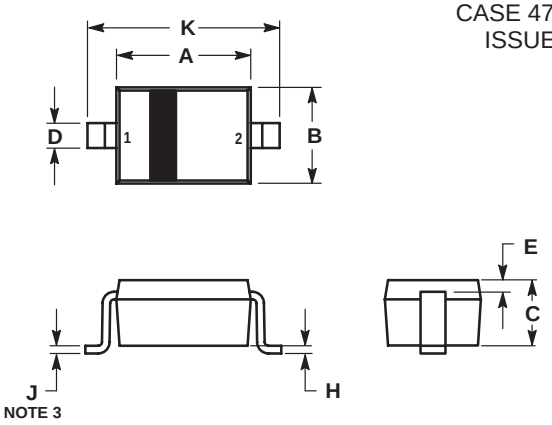


Figure 4. Leakage Current

PACKAGE DIMENSIONS

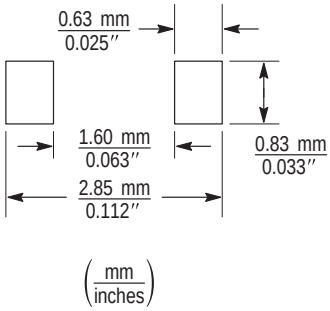
SOD–323
PLASTIC PACKAGE
CASE 477–02
ISSUE A



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.

	MILLIMETERS		INCHES	
DIM	MIN	MAX	MIN	MAX
A	1.60	1.80	0.063	0.071
B	1.15	1.35	0.045	0.053
C	0.80	1.00	0.031	0.039
D	0.25	0.40	0.010	0.016
E	0.15 REF		0.006 REF	
H	0.00	0.10	0.000	0.004
J	0.089	0.177	0.0035	0.0070
K	2.30	2.70	0.091	0.106

STYLE 1:
PIN 1. CATHODE
2. ANODE



SOD–323
Soldering Footprint

PUBLICATION ORDERING INFORMATION

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