# 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
- Pb-Free package is available

LMVL3401T1

SILICON PIN
SWITCHING DIODE

SOD– 323

1 CATHODE   2 ANODE
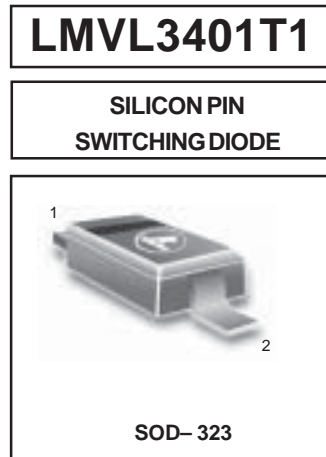
DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Package	Shipping
LMVL3401T1	4D	SOD-323	3000/Tape&Reel
LMVL3401T1G	4D	SOD-323 (Pb-Free)	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 BreakdownVoltage (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

TYPICAL CHARACTERISTICS
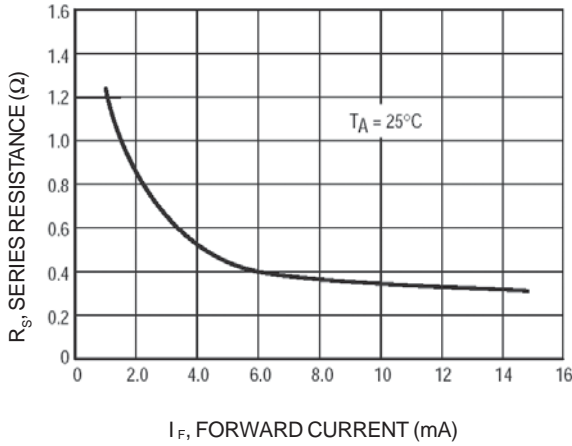
I_F, FORWARD CURRENT (mA)
Figure 1. Series Resistance
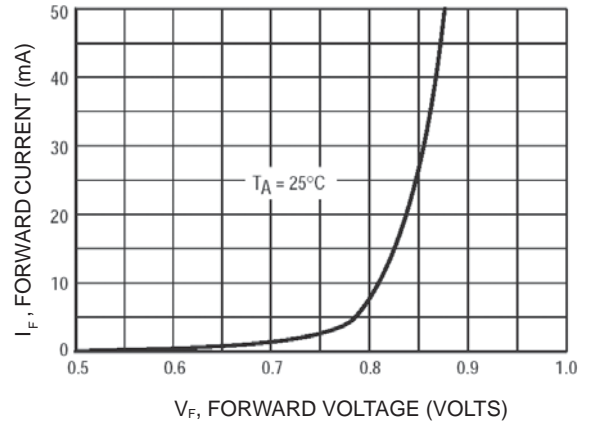
V_F, FORWARD VOLTAGE (VOLTS)
Figure 2. Forward Voltage

V_R, REVERSE VOLTAGE (VOLTS)
Figure 3. Diode Capacitance

T_A, AMBIENT TEMPERATURE (°C)
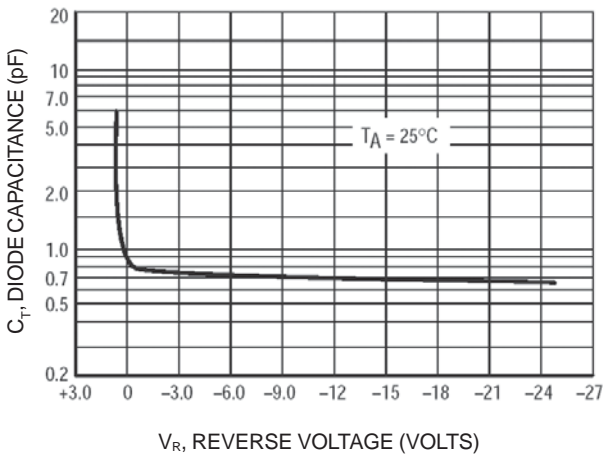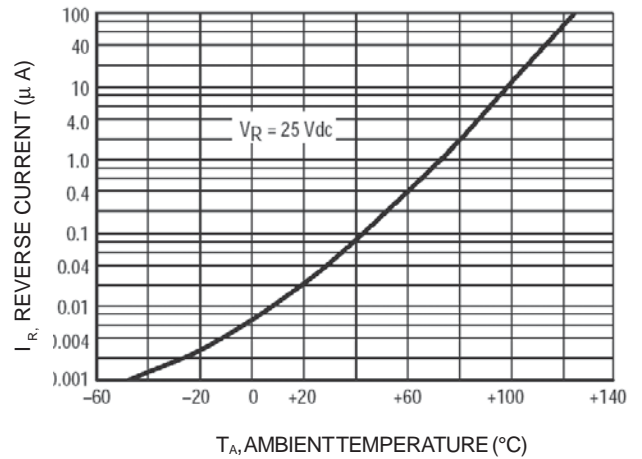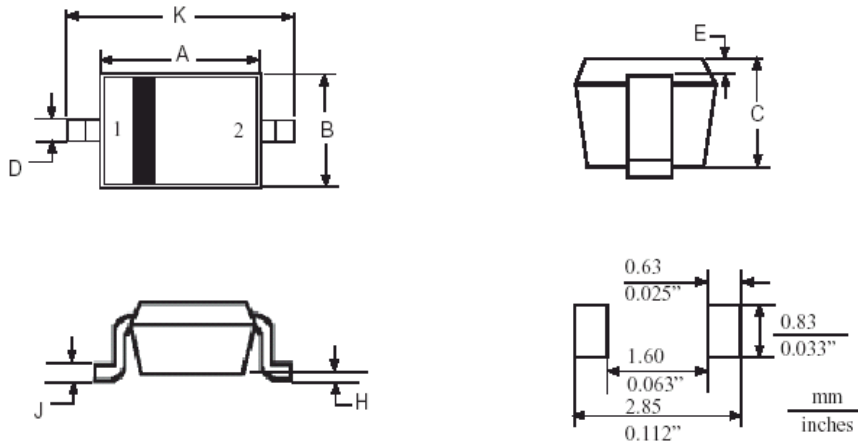**Figure 4. Leakage Current**

LMVL3401T1

SOD–323

NOTES:
1. CONTROLLING DIMENSION MILLIME TERS
2. LEAD THICKNESS SPECIFIEDPERL/FDRAWINGWITH SOLDERPLATING

DIN	MILLIMETERS		INCHES	
	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	0.0000	0.004
J	0.089	0.177	0.0035	0.0070
K	2.30	2.7	0.091	0.106