SDM03U40

SURFACE MOUNT SCHOTTKY BARRIER DIODE

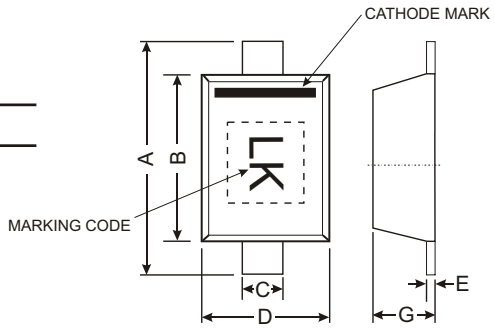
NEW PRODUCT

Features

- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideal for low logic level applications
- Low Capacitance

Mechanical Data

- Case: SOD-523, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Finish - Matte Tin (Note 1) Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking Code: LK
- Weight: 0.002 grams (approx.)



SOD-523		
Dim	**Min**	**Max**
A	1.50	1.70
B	1.10	1.30
C	0.25	0.35
D	0.70	0.90
E	0.10	0.20
G	0.50	0.70
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	40	V
DC Reverse Voltage	V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Average Rectified Current	I_O	30	mA
Non-Repetitive Peak Forward Surge Current @8.3ms Single half sine-wave superimposed on rated load (JEDEDC method)	I_{FSM}	200	mA
Power Dissipation (Note 2)	P_d	150	mW
Thermal Resistance, Junction to Ambient (Note 2)	$R_{\theta JA}$	667	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-40 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Breakdown Voltage (Note 3)	$V_{(BR)R}$	40	—	—	V	I_R = 10uA
Forward Voltage Drop	V_F	—	290	370	mV	I_F = 1mA
Peak Reverse Current (Note 3)	I_R	—	—	0.5	μA	V_R = 30V
Total Capacitance	C_j	—	2	—	pF	V_R = 1V, f = 1.0 MHz

Ordering Information (Note 4)

Device	Packaging	Shipping
SDM03U40-7	SOD-523	3000/Tape & Reel

Note:
1. If lead-bearing terminal plating is required, please contact your Diodes Inc. sales representative for availability and minimum order details.
2. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.
3. Short duration pulse test used so as to minimize self-heating effect.
4. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

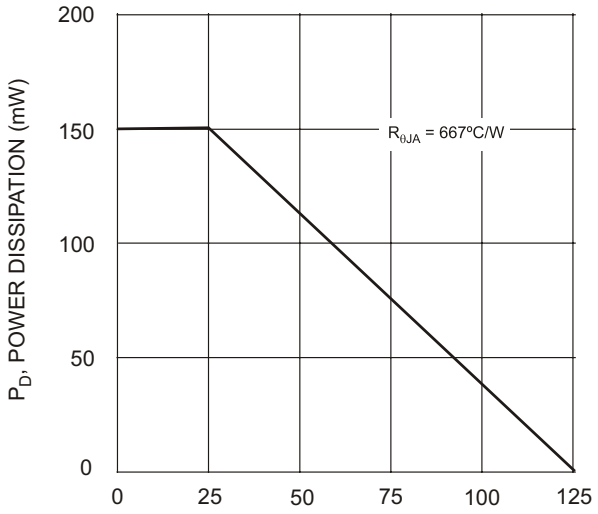


Fig. 1 Derating Curve

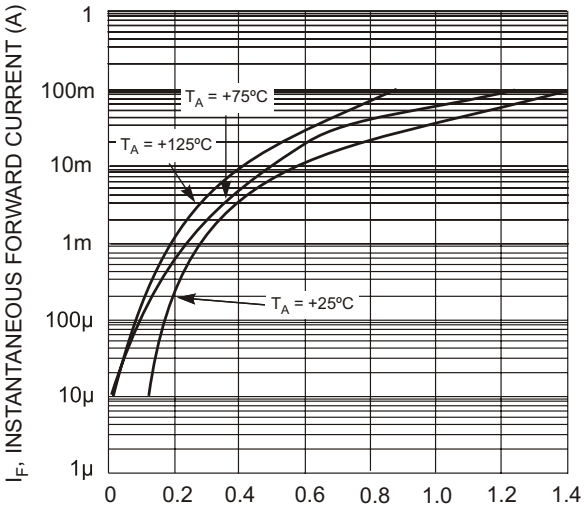


Fig. 2 Typical Forward Characteristics

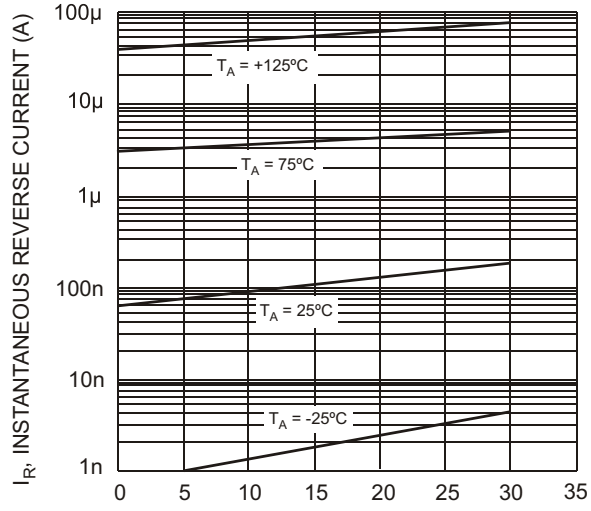


Fig. 3 Typical Reverse Characteristics

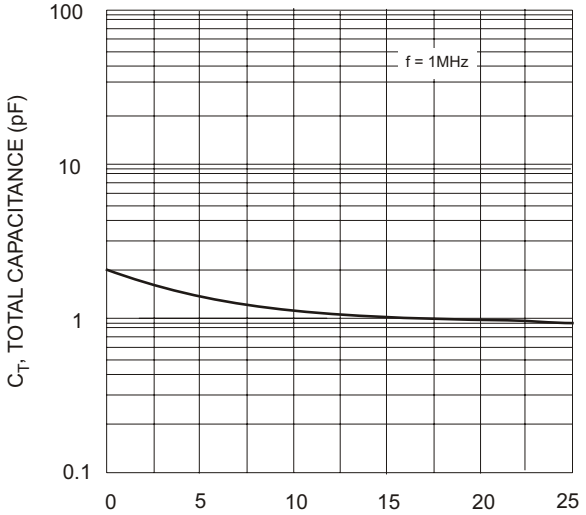


Fig. 4 Total Capacitance vs. DC Voltage

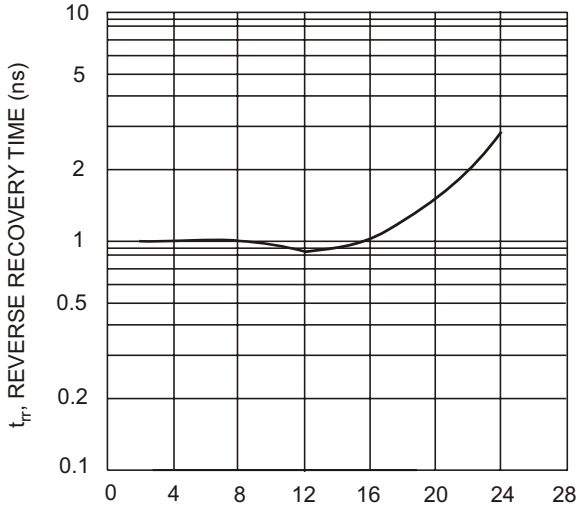


Fig. 5 Typical Reverse Recovery Time Characteristics