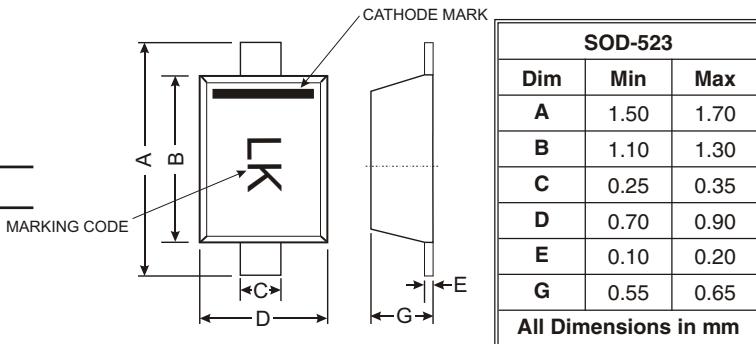


Features

- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideal for low logic level applications
- Low Capacitance
- Lead Free by Design/RoHS Compliant (Note 1)**
- "Green" Device, Note 4 and 5
- Qualified to AEC-Q101 Standards for High Reliability**

Mechanical Data

- Case: SOD-523
- Case Material: Molded Plastic, "Green" Molding Compound, Note 5. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminal Connections: Cathode Band
- Terminals: Finish - Matte Tin annealed over Alloy 42 leadframe. Solderable per MIL-STD-202, Method 208
- Marking Code: LK
- Ordering Information: See Last Page
- Weight: 0.002 grams (approximate)



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_0	30	mA
Non-Repetitive Peak Forward Surge Current @ 8.3ms Single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200	mA
Operating and Storage Temperature Range	T_j, T_{STG}	-40 to +125	C

Thermal Characteristics @ $T_A = 25$ C unless otherwise specified

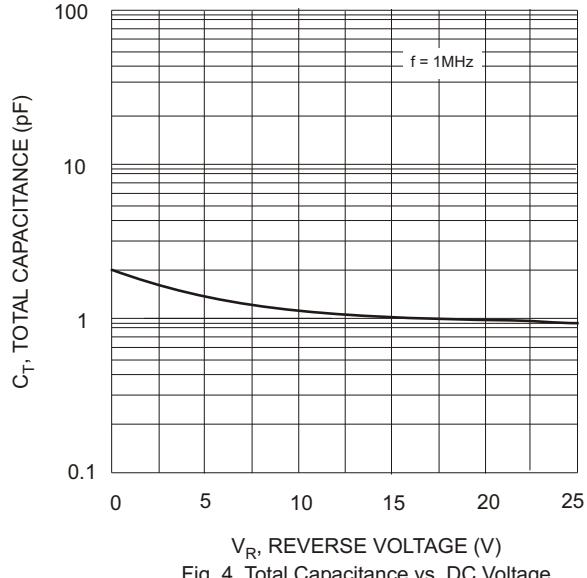
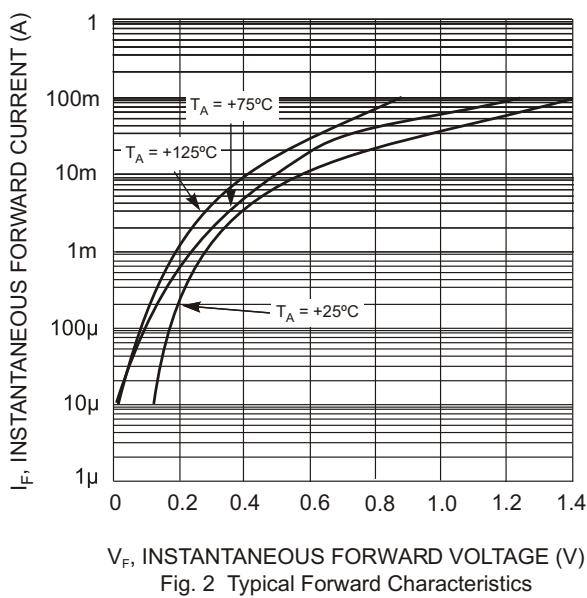
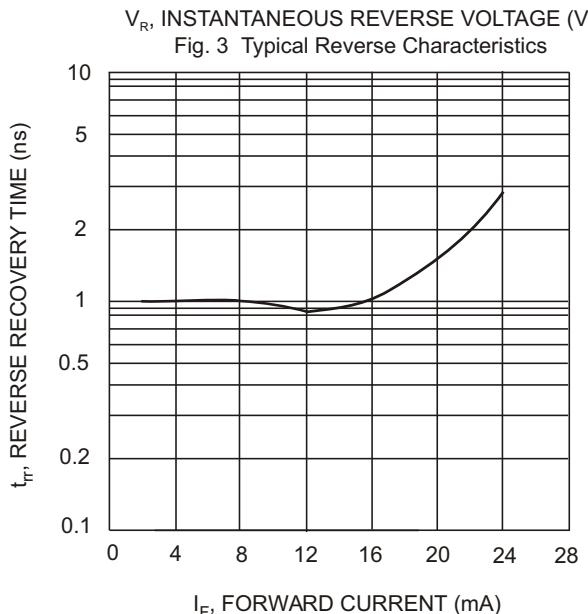
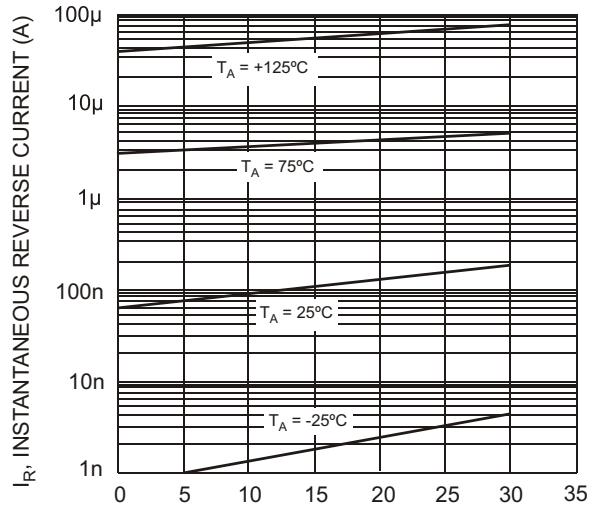
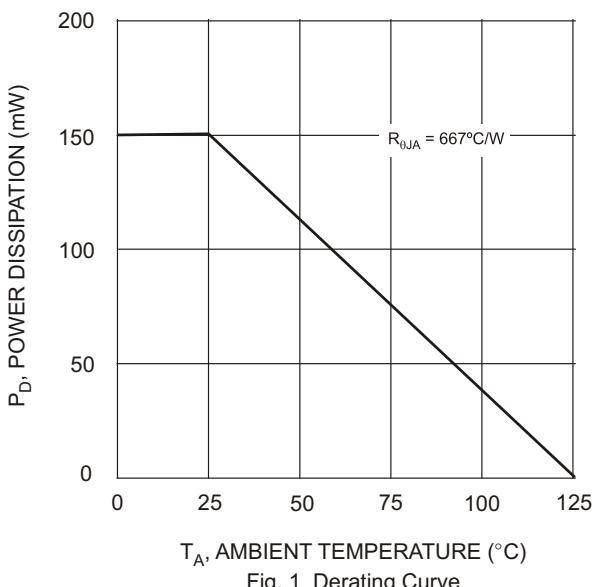
Characteristic	Symbol	Value	Unit
Power Dissipation (Note 2)	P_d	150	mW
Thermal Resistance, Junction to Ambient (Note 2)	R_{JA}	667	C/W

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	$I_R = 10\mu A$
Forward Voltage (Note 3)	V_F		290	370	mV	$I_F = 1mA$
Peak Reverse Current (Note 3)	I_R			0.5	A	$V_R = 30V$
Total Capacitance	C_j		2		pF	$V_R = 1V, f = 1.0\text{ MHz}$

Note:

1. No purposefully added lead.
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 to minimize self-heating effect.
4. Diodes Inc.'s "Green" Policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.
5. Product manufactured with date code 0609 (week 9, 2006) and newer are built with Green Molding Compound. Product manufactured prior to date code 0609 are built with Non-Green Molding Compound and may contain Halogens or Sb₂O₃ Fire Retardants.



Ordering Information (Note 5 & 6)

Device	Packaging	Shipping
SDM03U40-7	SOD-523	3000/Tape & Reel
SDM03U40-76K	SOD-523	6000/Tape & Reel

Note: 5. Product manufactured with date code 0609 (week 9, 2006) and newer are built with Green Molding Compound. Product manufactured prior to date code 0609 are built with Non-Green Molding Compound and may contain Halogens or Sb₂O₃ Fire Retardants.
6. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

IMPORTANT NOTICE

Diodes, Inc. and its subsidiaries reserve the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. Diodes, Inc. does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

The products located on our website at **www.diodes.com** are not recommended for use in life support systems where a failure or malfunction of the component may directly threaten life or cause injury without the expressed written approval of Diodes Incorporated.