



SDM03U40

SURFACE MOUNT SCHOTTKY BARRIER DIODE

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-020D •
- **Terminal Connections: Cathode Band**
- Terminals: Finish Matte Tin annealed over Alloy 42 leadframe. • Solderable per MIL-STD-202, Method 208
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: 0.002 grams (approximate)



Top View

Maximum Ratings $@T_A = 25^{\circ}C$ 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	lo	30	mA
Non-Repetitive Peak Forward Surge Current @8.3ms Single half sine-wave superimposed on rated load	I _{FSM}	200	mA

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 2)	PD	150	mW
Thermal Resistance, Junction to Ambient (Note 2)	$R_{ ext{ heta}JA}$	667	°C/W
Operating and Storage Temperature Range	$T_{J,}T_{STG}$	-40 to +125	٥C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Conditions
Reverse Breakdown Voltage (Note 3)	V _{(BR)R}	40		_	V	$I_{R = 10}uA$
Forward Voltage	VF	_	290	370	mV	I _F = 1mA
Peak Reverse Current (Note 3)	I _R	_	_	0.5	μΑ	V _R = 30V
Total Capacitance	CT		2		pF	$V_{R} = 1V, f = 1.0 \text{ MHz}$

Notes: 1. No purposefully added lead.

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. 2. 3

Short duration pulse test used to minimize self-heating effect. 4

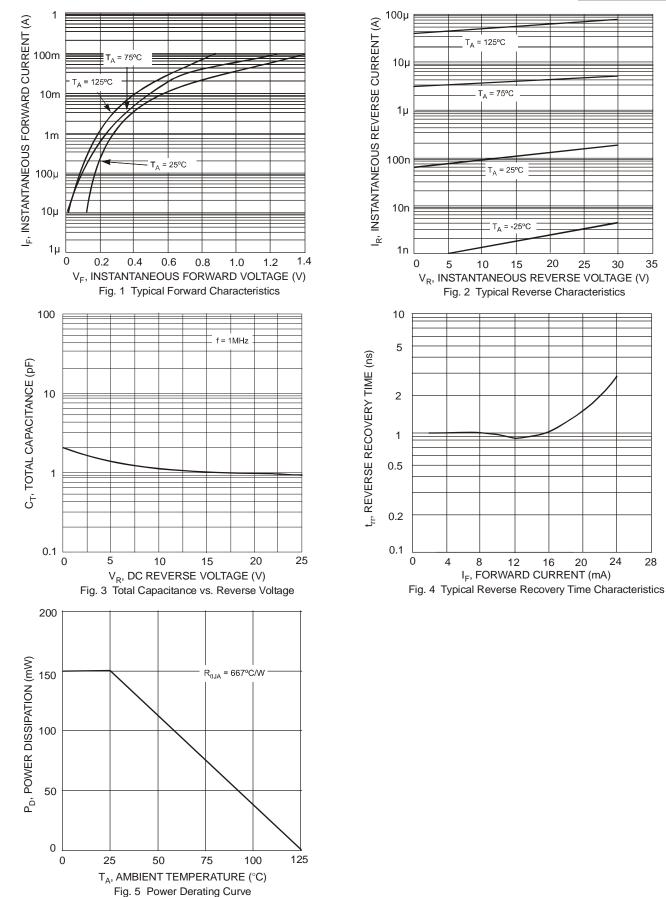
Diodes Inc.'s "Green" Policy can be found on our website at http://www.diodes.com/products/lead_free/index.php. Product manufactured with date code 0627 (week 27, 2006) and newer are built with Green Molding Compound. Product manufactured prior to date 5. code 0627 are built with Non-Green Molding Compound and may contain Halogens or Sb2O3 Fire Retardants.





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Ordering Information (Notes 5 & 6)

Part Number	Case	Packaging
SDM03U40-7 (Note 7)	SOD-523	3000/Tape & Reel
SDM03U40-76K	SOD-523	6000/Tape & Reel

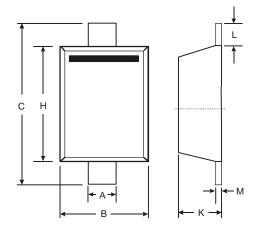
Notes: 6. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf. 7. Dispensed in every other cavity of the tape.

Marking Information



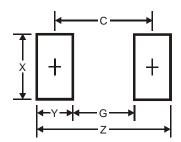
LK = Product Type Marking Code

Package Outline Dimensions



SOD-523			
Dim	Min	Max	
Α	0.25	0.35	
В	0.70	0.90	
С	1.50	1.70	
Н	1.10	1.30	
Κ	0.55	0.70	
L	0.10	0.30	
М	0.10	0.20	
All Dimensions in mm			

Suggested Pad Layout



Dimensions	Value (in mm)
Z	2.3
G	1.1
Х	0.8
Y	0.6
С	1.7

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