

SDMK0340L

June 2008

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, Halogen and Antimony Free, RoHS Compliant "Green" Device (Notes 2 and 3)

Mechanical Data

- Case: SOD-323
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Leads: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Polarity: Cathode Band
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: 0.004 grams (approximate)



Top View

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	40	V
RMS Reverse Voltage	V _{R(RMS)}	28	V
Maximum (Peak) Forward Current	I _{FM}	30	mA
Non-Repetitive Peak Forward Surge Current @8.3ms Single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	200	mA

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation	P _D	160	mW
Thermal Resistance, Junction to Ambient Air	$R_{ hetaJA}$	625	°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	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	40	_	_	V	$I_R = 10uA$
Forward Voltage Drop	V_{F}	_	290	370	mV	$I_F = 1mA$
Leakage Current (Note 1)	I _R	_	0.20	0.5	μΑ	$V_R = 30V$
Total Capacitance	Ст	_	2	_	pF	$V_R = 1V$ $f = 1.0$ MHz

Notes:

- 1. Short duration pulse test used to minimize self-heating effect.
- No purposefully added lead. Halogen and Antimony Free.
 Product manufactured with Data Code V9 (week 33, 2008) and newer are built with Green Molding Compound. Products manufactured prior to Date Code V9 are built with Non-Green Molding Compound and may contain Halogens or Sb₂O₃ Fire Retardants.



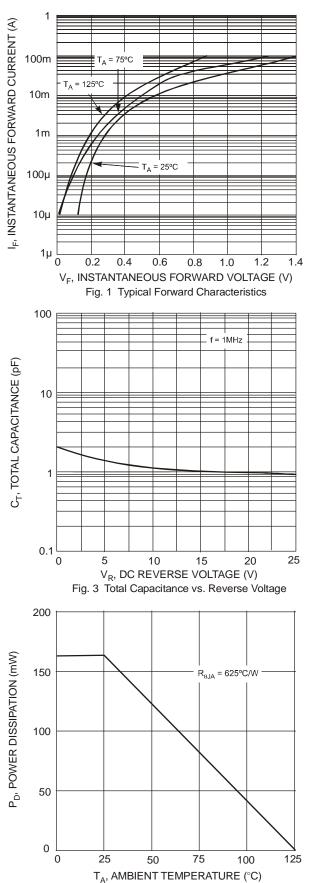
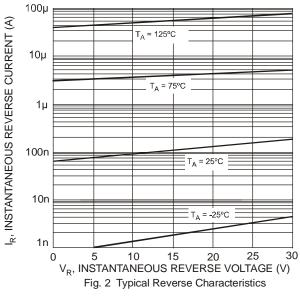


Fig. 5 Power Derating Curve



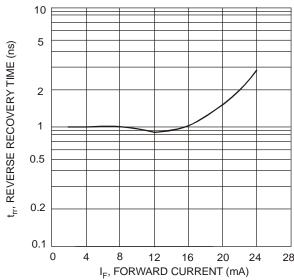


Fig. 4 Typical Reverse Recovery Time Characteristics



Ordering Information (Note 4)

Device	Packaging	Shipping
SDMK0340L-7-F	SOD-323	3000/Tape & Reel

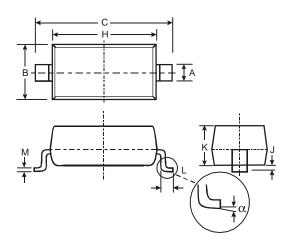
Notes: 4. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



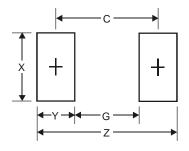
SR = Product Type Marking Code

Package Outline Dimensions



SOD-323				
Dim	Min	Max		
Α	0.25	0.35		
В	1.20	1.40		
С	2.30	2.70		
Н	1.60	1.80		
J	0.00	0.10		
K	1.0	1.1		
L	0.20	0.40		
M	0.10	0.15		
α	0°	8°		
All Dimensions in mm				

Suggested Pad Layout



Dimensions	Value (in mm)
Z	3.75
G	1.05
Х	0.65
Υ	1.35
С	2.40

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