



SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- Very Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Lead, Halogen and Antimony Free, RoHS Compliant "Green" Device (Notes 2, 4 and 5)

Mechanical Data

- Case: SOD-323
- Case Material: Molded Plastic. "Green" Molding Compound. 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 2
- Ordering Information: See Page 2
- Weight: 0.004 grams (approximate)



Top View

Maximum Ratings $@T_A = 25^{\circ}C$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	30	V
RMS Reverse Voltage	V _{R(RMS)}	21	V
Average Rectified Output Current	lo	1	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	9	A

Thermal Characteristics

Notes:

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	PD	200	mW
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{ ext{ heta}JA}$	426	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +125	°C

Electrical Characteristics $@T_A = 25^{\circ}C$ unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Conditions
Reverse Breakdown Voltage (Note 3)	V _{(BR)R}	30			V	I _R = 500μA
Forward Voltage Drop Vi)/-	_	_	360	mV	I _F = 100mA
	VF	—	—	485		I _F = 1A
Leakage Current (Note 3)	I _R	_	_	100	μΑ	V _R = 20V
Total Capacitance	CT		22	_	pF	$f = 1MHz, V_R = 10VDC$

Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.
Diodes Inc's "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.

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

Short duration pulse test used to minimize sensitivating energy.
No purposefully added lead. Halogen and Antimony Free.

Product manufactured with Green Molding Compound and does not contain Halogens or Sb₂O₃ Fire Retardants.



SDM100K30L



Ordering Information (Note 6)

Part Number	Case	Packaging
SDM100K30L-7	SOD-323	3000/Tape & Reel

Notes: 6. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information





Package Outline Dimensions



Suggested Pad Layout



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

IMPORTANT NOTICE

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. Diodes Incorporated 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

Diodes Incorporated products are not authorized for use as critical components in life support devices or systems without the expressed written approval of the President of Diodes Incorporated.