Excellent Integrated System Limited

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Diodes Incorporated
SD101A-A

For any questions, you can email us directly:
sales@integrated-circuit.com

NOT RECOMMENDED FOR NEW DESIGN, USE SD101AW – SD101CW

SD101A - SD101C

SCHOTTKY BARRIER DIODE

Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Low Reverse Recovery Time
- Low Reverse Capacitance
- **Lead Free Finish, RoHS Compliant (Note 2)**

Mechanical Data

- Case: DO-35
- Case Material: Glass
- Moisture Sensitivity: Level 1 per J-STD-020D
- Leads: Solderable per MIL-STD-202, Method 208
- Terminals: Finish — Matte Tin. Solderable per MIL-STD-202, Method 208 (e3)
- Polarity: Cathode Band
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: 0.13 grams (approximate)

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	SD101A	SD101B	SD101C	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	60	50	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	42	35	28	V
Forward Continuous Current (Note 1)	I_{FM}	15			mA
Non-Repetitive Peak Forward Surge Current @ t ≤ 1.0s @ t = 10µs	I_{FSM}	50 2.0			mA A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P_D	400	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	375	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175	°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic		Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage Drop	SD101A	V_{FM}	—	0.41	V	I_F = 1.0mA
	SD101B			0.40		I_F = 1.0mA
	SD101C			0.39		I_F = 1.0mA
	SD101A			1.00		I_F = 15mA
	SD101B			0.95		I_F = 15mA
	SD101C			0.90		I_F = 15mA
Maximum Peak Reverse Current	SD101A	I_{RM}	—	200	nA	V_R = 50V
	SD101B					V_R = 40V
	SD101C					V_R = 30V
Total Capacitance	SD101A	C_T	—	2.0	pF	V_R = 0V, f = 1.0MHz
	SD101B			2.1		
	SD101C			2.2		
Reverse Recovery Time		t_{rr}	—	1.0	ns	I_F = I_R = 5.0mA, I_{rr} = 0.1 x I_R, R_L = 100Ω

Notes: 1. Valid provided that leads are kept at ambient temperature.
2. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see *EU Directive 2002/95/EC Annex Notes.*

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SD101A - SD101C

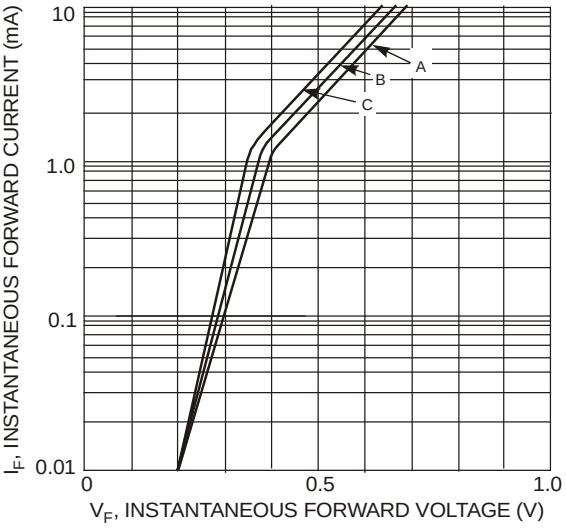


Fig. 1 Typical Forward Characteristics

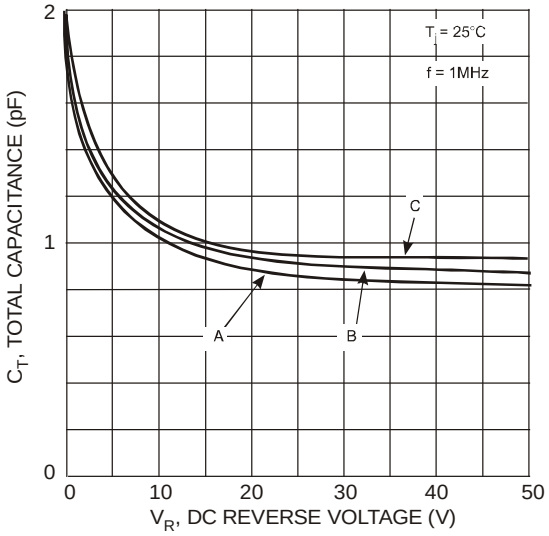


Fig. 2 Total Capacitance vs. Reverse Voltage

Ordering Information (Note 3)

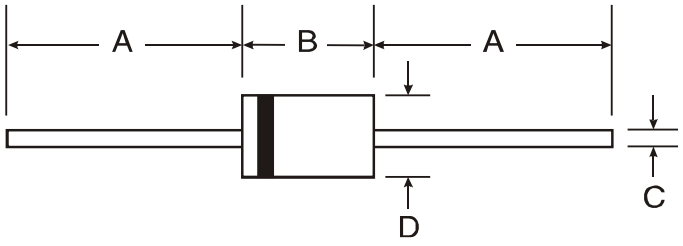
Part Number	Case	Packaging
SD101A-A	DO-35	10K/Ammo Pack
SD101A-T	DO-35	10K/Tape & Reel, 13-inch
SD101B-A	DO-35	10K/Ammo Pack
SD101B-T	DO-35	10K/Tape & Reel, 13-inch
SD101C-A	DO-35	10K/Ammo Pack
SD101C-T	DO-35	10K/Tape & Reel, 13-inch

Notes: 3. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information

SD101x= Product Type Marking Code
(SD101A, SD101B, SD101C)
= Manufacturers' Code Marking
YWW = Date Code Marking
Y = Last digit of (ex: 2 for 2002)
WW = Week code 01 to 52

Package Outline Dimensions



DO-35		
Dim	**Min**	**Max**
A	25.40	—
B	—	4.00
C	—	0.60
D	—	2.00
All Dimensions in mm		