SD101A - SD101C

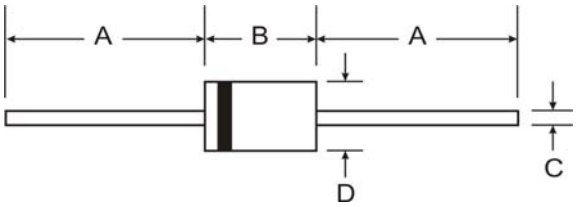
SCHOTTKY BARRIER DIODE

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-020C
- 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)



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

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
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. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and high temperature solder exemptions applied where applicable, see *EU Directive Annex Notes 5 and 7.*

© Diodes Incorporated

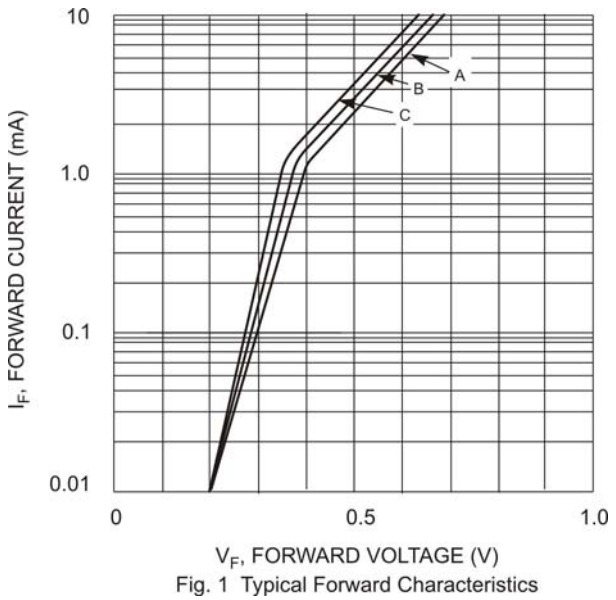


Fig. 1 Typical Forward Characteristics

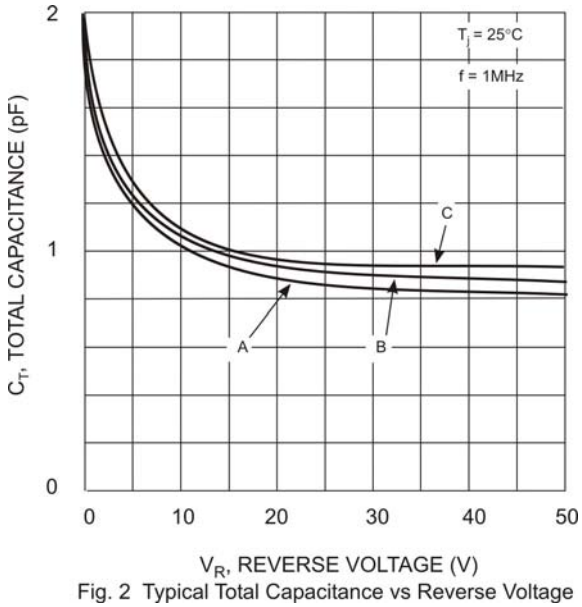


Fig. 2 Typical Total Capacitance vs Reverse Voltage

Ordering Information (Note 3)

Device	Packaging	Shipping
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/ap02008.pdf.

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.

© Diodes Incorporated

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Diodes Incorporated:

SD101A-T SD101B-T SD101C-T