

### 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 <sup>Ⓔ</sup>
- Polarity: Cathode Band
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: 0.13 grams (approximate)

### Maximum Ratings @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	SD101A	SD101B	SD101C	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>				
Working Peak Reverse Voltage	V <sub>RWM</sub>	60	50	40	V
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	42	35	28	V
Forward Continuous Current (Note 1)	I <sub>FM</sub>		15		mA
Non-Repetitive Peak Forward Surge Current	I <sub>FSM</sub>		50		mA
			@ t = 10μs	2.0	

### Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P <sub>D</sub>	400	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	375	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175	°C

### Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage Drop	V <sub>FM</sub>	—	0.41	V	I <sub>F</sub> = 1.0mA
			0.40		I <sub>F</sub> = 1.0mA
			0.39		I <sub>F</sub> = 1.0mA
			1.00		I <sub>F</sub> = 15mA
			0.95		I <sub>F</sub> = 15mA
0.90	I <sub>F</sub> = 15mA				
Maximum Peak Reverse Current	I <sub>RM</sub>	—	200	nA	V <sub>R</sub> = 50V
					V <sub>R</sub> = 40V
					V <sub>R</sub> = 30V
Total Capacitance	C <sub>T</sub>	—	2.0	pF	V <sub>R</sub> = 0V, f = 1.0MHz
			2.1		
			2.2		
Reverse Recovery Time	t <sub>rr</sub>	—	1.0	ns	I <sub>F</sub> = I <sub>R</sub> = 5.0mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 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*.

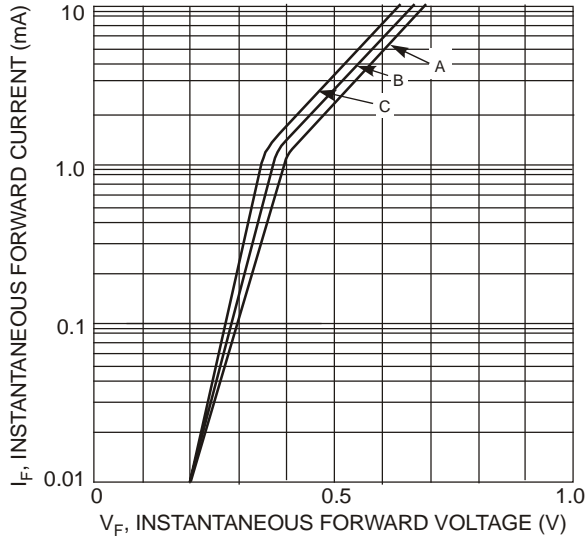


Fig. 1 Typical Forward Characteristics

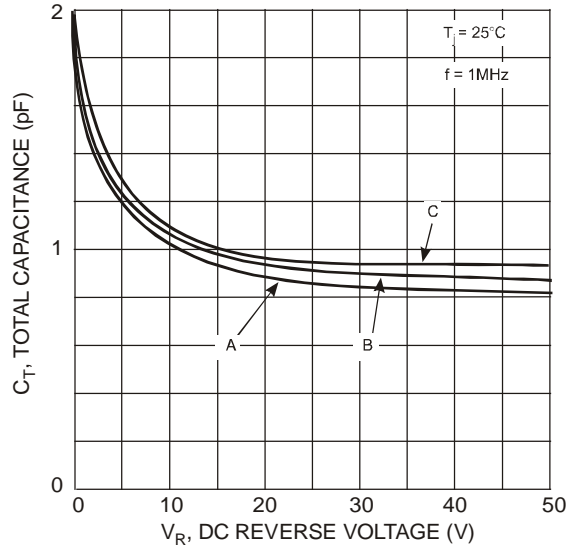


Fig. 2 Total Capacitance vs. Reverse Voltage

**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

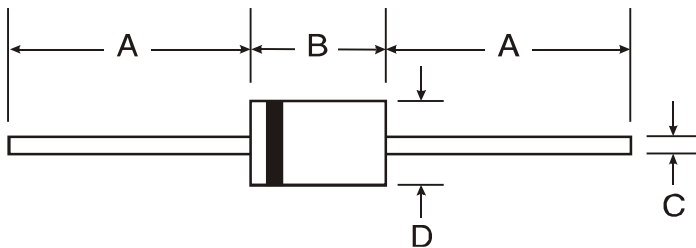
Notes: 3. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Marking Information**



SD101x= Product Type Marking Code (SD101A, SD101B, SD101C)  
 DII = 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		

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