

# SD101A - SD101C

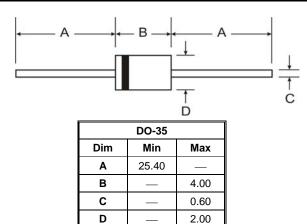
# SCHOTTKY BARRIER DIODE

#### 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 @3
- Polarity: Cathode Band
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: 0.13 grams (approximate)



All Dimensions in mm

### **Maximum Ratings** $@T_A = 25^{\circ}C$ 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>		mA		
Non-Repetitive Peak Forward Surge Current @ $t \le 1.0s$		50			mA
@ t = 10μs	IFSM		2.0		А
Power Dissipation (Note 1)	Pd		400		mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>0JA</sub>	375			°C/W
Operating and Storage Temperature Range	T <sub>i</sub> , T <sub>STG</sub>		°C		

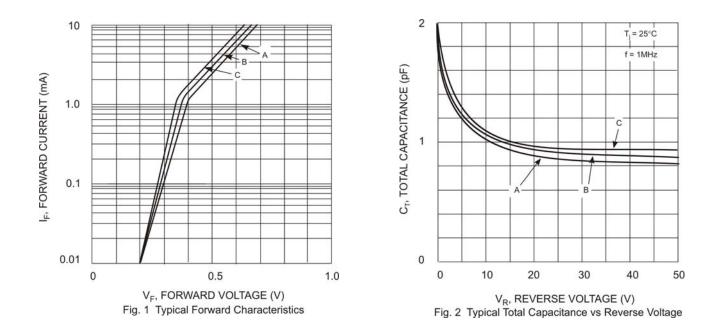
## Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic		Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage Drop	SD101A			0.41		$I_F = 1.0 \text{mA}$
	SD101B			0.40		$I_F = 1.0 \text{mA}$
	SD101C	V <sub>FM</sub>		0.39	V	$I_F = 1.0 \text{mA}$
	SD101A		1.00	v	$I_F = 15 \text{mA}$	
	SD101B			0.95		$I_F = 15 \text{mA}$
	SD101C			0.90		$I_F = 15 \text{mA}$
Maximum Peak Reverse Current	SD101A					$V_R = 50V$
	SD101B	I <sub>RM</sub>		200	nA	$V_R = 40V$
	SD101C					$V_R = 30V$
Total Capacitance	SD101A			2.0		
	SD101B	CT		2.1	pF	$V_{R} = 0V, f = 1.0MHz$
	SD101C			2.2		
				1.0	20	$I_{\rm F} = I_{\rm R} = 5.0 {\rm mA},$
Reverse Recovery Time		t <sub>rr</sub>		1.0	ns	$I_{rr} = 0.1 \text{ x } I_R, R_L = 100\Omega$

Notes: 1. Valid provided that leads are kept at ambient temperature.

 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.





# 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.

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