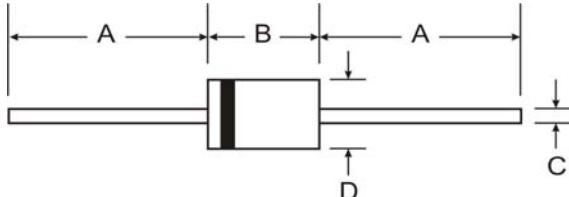


Features

- 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 — Sn96.5Ag3.5. Solderable per MIL-STD-202, Method 208 (e3)
- Polarity: Cathode Band
- Marking Information: See Page 3
- Ordering Information: See Page 3
- 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

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

Characteristic	Symbol	SD103A	SD103B	SD103C	Unit
Peak Repetitive Reverse Voltage	$V_{R\text{RM}}$				
Working Peak Reverse Voltage	$V_{R\text{WM}}$	40	30	20	V
DC Blocking Voltage	V_R				
RMS Reverse Voltage	$V_{R(\text{RMS})}$	28	21	14	V
Forward Continuous Current	I_{FM}		350		mA
Repetitive Peak Forward Current (Note 1) @ $t \leq 1.0\text{s}$	I_{FRM}		1.0		A
Non-Repetitive Peak Forward Surge Current 8.3 ms Half Sine Wave	I_{FSM}		15		A
Power Dissipation (Note 1)	P_d		400		mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R_{JJA}		300		$^\circ\text{C/W}$
Operating Junction Temperature	T_j		125		$^\circ\text{C}$
Storage Temperature Range	T_{STG}		-55 to +150		$^\circ\text{C}$

Electrical Characteristics

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 3)	$V_{(\text{BR})R}$	40 30 20	—	—	V	$I_R = 100\mu\text{A}$
Maximum Forward Voltage Drop	V_{FM}	—	—	0.37 0.60	V	$I_F = 20\text{mA}$ $I_F = 200\text{mA}$
Maximum Peak Reverse Current (Note 3)	I_{RM}	—	—	5.0	μA	$V_R = 30\text{V}$ $V_R = 20\text{V}$ $V_R = 10\text{V}$
Total Capacitance	C_T	—	50	—	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	10	—	ns	$I_F = I_R = 50\text{mA to } 200\text{mA}$, $I_{\text{rr}} = 0.1 \times I_R, R_L = 100\Omega$

Notes:

1. Valid provided that device terminals 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.
3. Short duration test pulse used to minimize self-heating effect.

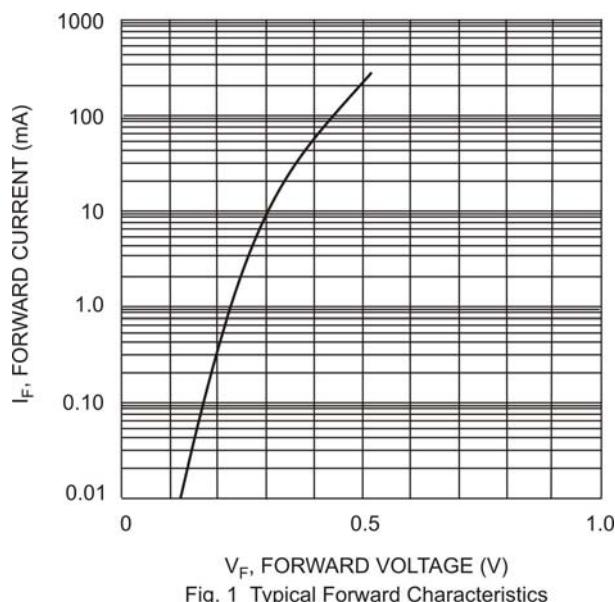


Fig. 1 Typical Forward Characteristics

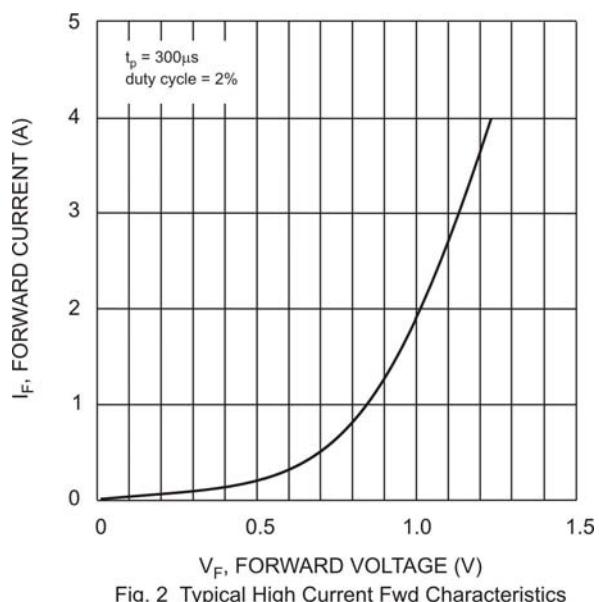


Fig. 2 Typical High Current Fwd Characteristics

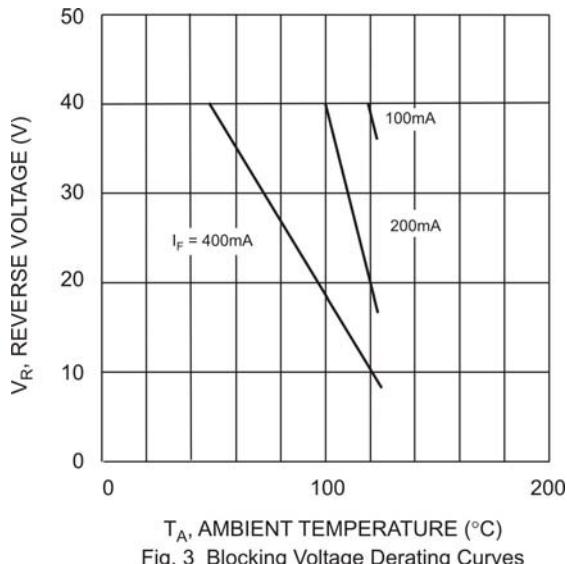


Fig. 3 Blocking Voltage Derating Curves

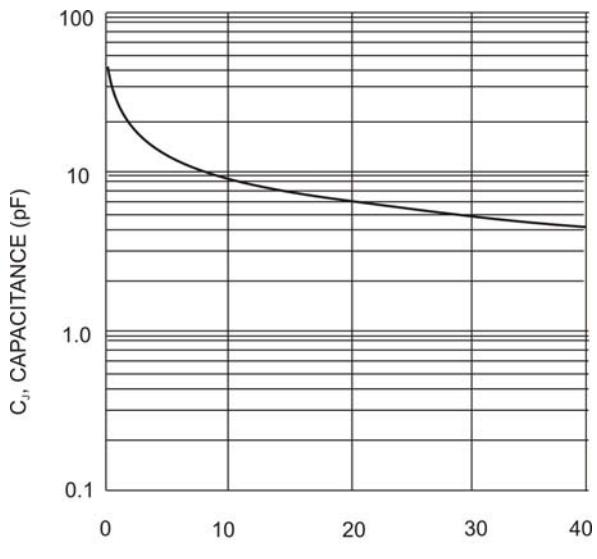


Fig. 4 Typ. Junction Capacitance vs Reverse Voltage

Ordering Information (Note 4)

Device	Packaging	Shipping
SD103A-A	DO-35	10,000 / Ammo Pak
SD103A-T	DO-35	10,000 / Tape & Reel
SD103B-A	DO-35	10,000 / Ammo Pak
SD103B-T	DO-35	10,000 / Tape & Reel
SD103C-A	DO-35	10,000 / Ammo Pak
SD103C-T	DO-35	10,000 / Tape & Reel

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



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