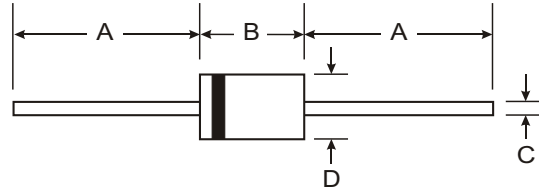


Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Low Reverse Recovery Time
- Low Reverse Capacitance



Mechanical Data

- Case: DO-35, Glass
- Leads: Solderable per MIL-STD-202, Method 208
- Marking: Type Number
- Polarity: Cathode Band
- Weight: 0.13 grams (approx.)

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

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

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

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage SD103A SD103B SD103C	$V_{(BR)R}$	40 30 20	—	—	V	$I_{RS} = 100\mu\text{A}$ (pulsed)
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 SD103A SD103B SD103C	I_{RM}	—	—	5.0	μA	$V_R = 30\text{V}$ $V_R = 20\text{V}$ $V_R = 10\text{V}$
Junction Capacitance	C_j	—	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 200mA , $I_{rr} = 0.1 \times I_R$, $R_L = 100\Omega$

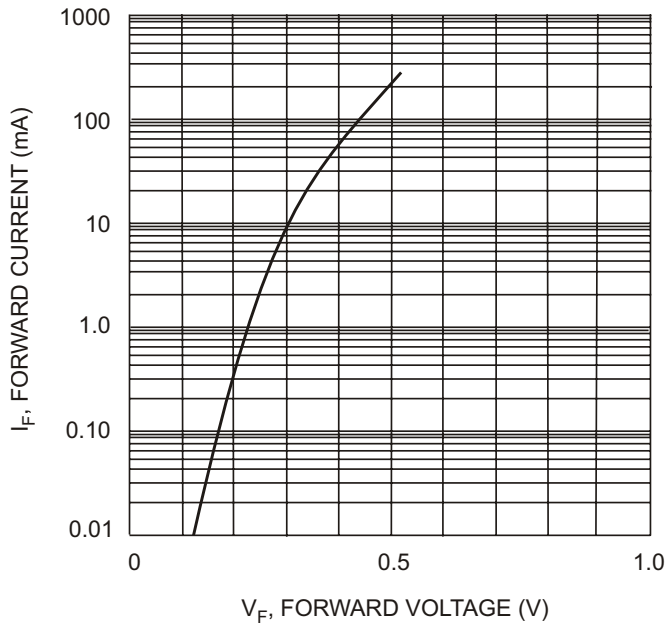


Fig. 1 Typical Forward Characteristics

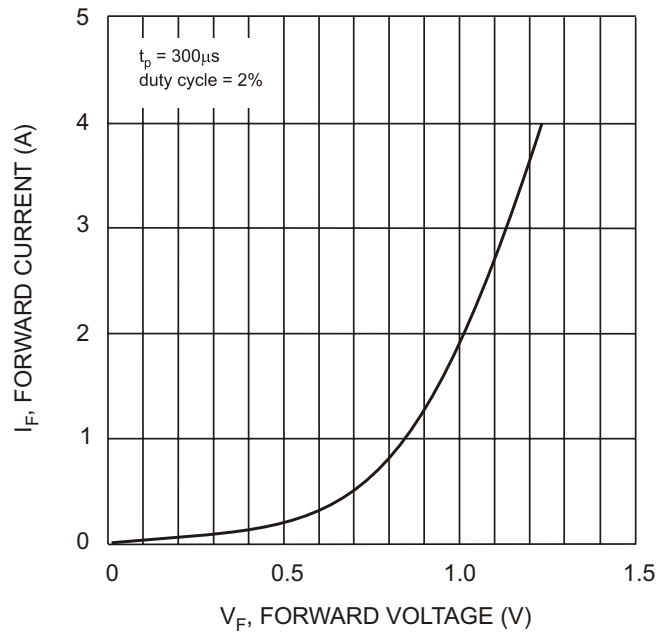


Fig. 2 Typical High Current Fwd Characteristics

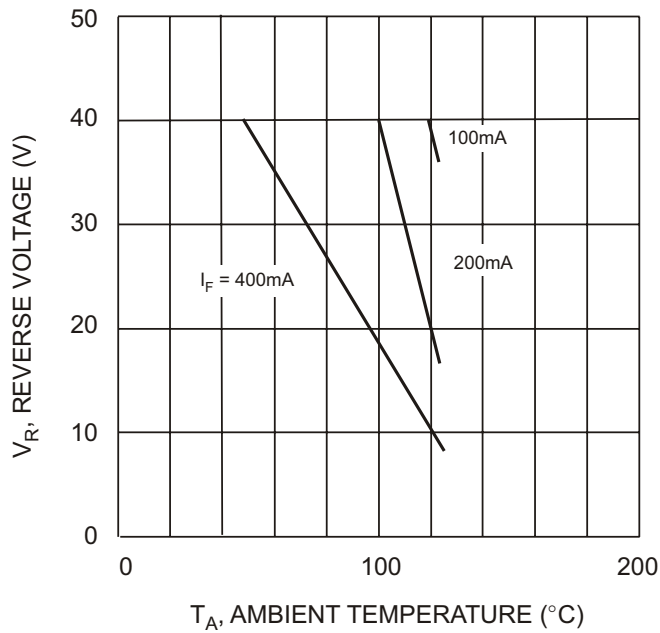


Fig. 3 Blocking Voltage Derating Curves

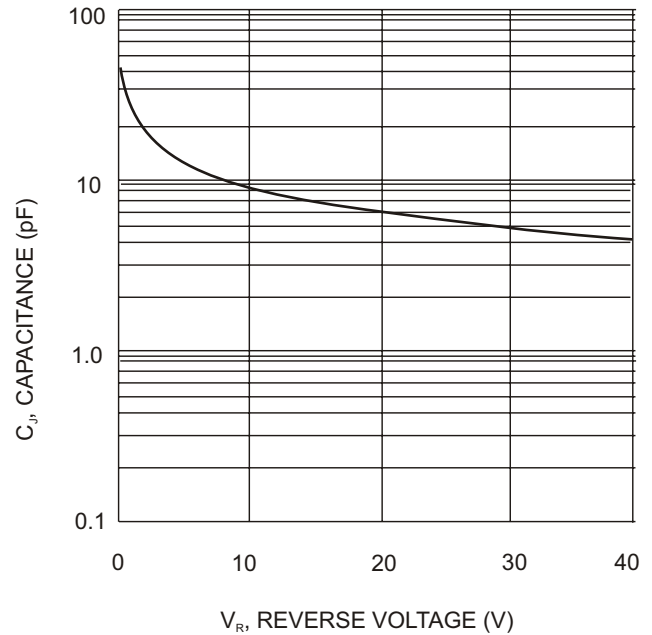


Fig. 4 Typ. Junction Capacitance vs Reverse Voltage

Ordering Information (Note 1)

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

Marking Information