



Micro Commercial Components  
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# SD103A THRU SD103C

## Features

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

## Small Signal Schottky Diodes

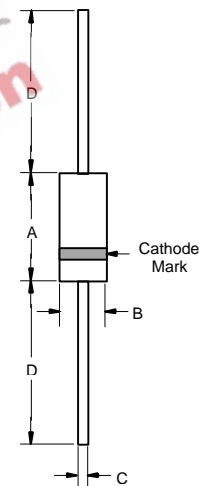
## Mechanical Data

- Case: DO-35, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band

Maximum Ratings @ 25°C Unless Otherwise Specified

Characteristic	Symbol	SD103A	SD103B	SD103C
Peak Repetitive Reverse Voltage	$V_{RRM}$			
Working Peak Reverse Voltage	$V_{RWM}$	40V	30V	20V
DC Blocking Voltage	$V_R$			
RMS Reverse Voltage	$V_{R(RMS)}$	28V	21V	14V
Maximum single cycle surge 60Hz sine wave	$I_{FSM}$		15A	
Power Dissipation(Note 1)	$P_d$		400mW	
Thermal Resistance, Junction to Ambient	$R$		300K/W	
Junction Temperature	$T_j$		125°C	
Operation/Storage Temp. Range	$T_{STG}$		-55 to +150°C	

## DO-35



Electrical Characteristics @ 25°C Unless Otherwise Specified

Characteristic	Symbol	Type	Max	Test Condition
SD103A Leakage Current	$I_R$	-----	5.0uA	$V_R=30V$
SD103B Leakage Current	$I_R$	-----	5.0uA	$V_R=20V$
SD103C Leakage Current	$I_R$	-----	5.0uA	$V_R=10V$
Maximum Forward Voltage Drop	$V_{FM}$	-----	0.37V 0.60V	$I_F=20mA$ $I_F=200mA$
Junction Capacitance	$C_j$	50pF	-----	$V_R=0V, f=1.0MHz$
Reverse Recovery Time	$t_{rr}$	10ns	-----	$I_F=I_R=50mA, \text{recover to } 200mA/0.1I_R$

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

**Note:** 1. Valid provided that electrodes are kept at ambient temperature

Figure 1. Typical variation of forward current vs. Forward Voltage for primary conduction through the schottky barrier

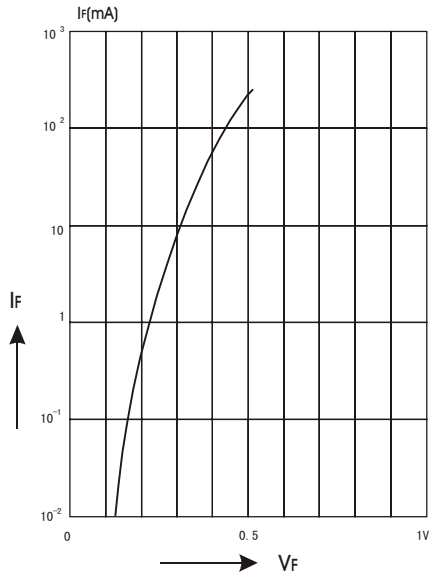


Figure 2. Typical high current forward conduction curve  $t_p=300ms$ , duty cycle=2%

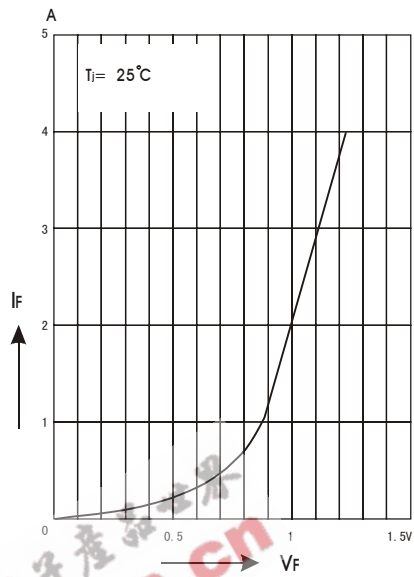


Figure 3. Typical non repetitive forward surge current versus pulse width

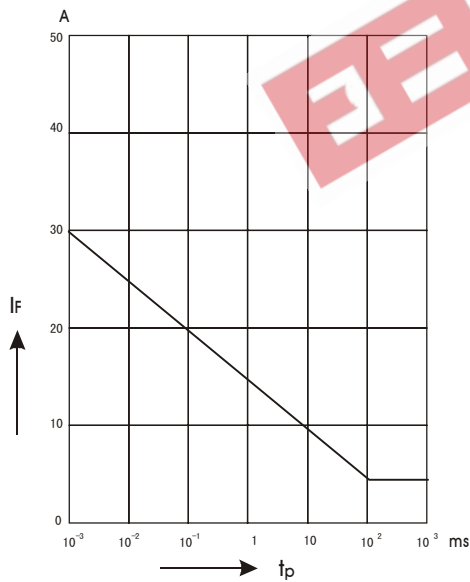


Figure 4. Typical variation of reverse current at various temperatures

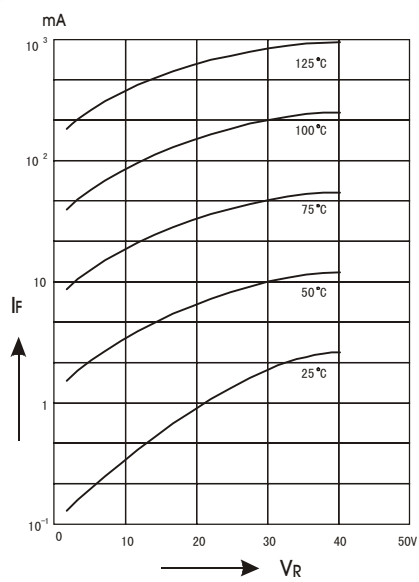


Figure 5. Blocking deration versus temperature at various average forward currents

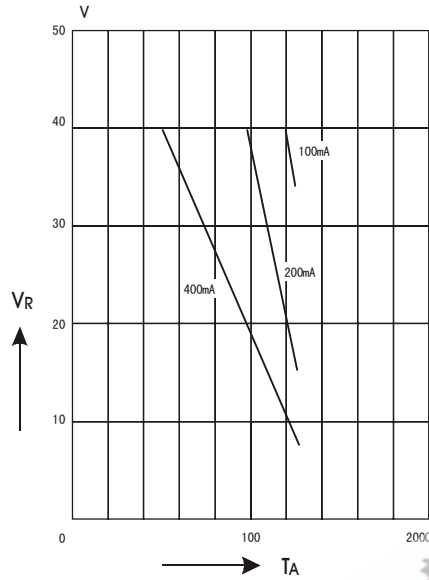


Figure 6. Typical capacitance versus reverse voltage

