



Micro Commercial Components

Micro Commercial Components  
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# SD103A THRU SD103C

## Small Signal Schottky Diodes

### Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Low Reverse Recovery Time
- Low Reverse Capacitance
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection

### Mechanical Data

- Case: DO-35, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band
- Moisture Sensitivity: Level 1 per J-STD-020C

### 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 2)	$P_d$	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

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	---	

### Electrical Characteristics @25°C Unless Otherwise Specified

Parameter	Symbol	Type	Max	Test Condition
SD103A			5.0uA	$V_R=30V$
Leakage Current	$I_R$	----	5.0uA	$V_R=20V$
SD103B			5.0uA	$V_R=10V$
SD103C			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	----	$I_F=I_R=50mA, \text{recover to } 200mA/0.1I_R$

Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.  
2. Valid provided that electrodes are kept at ambient temperature

# SD103A thru SD103C

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

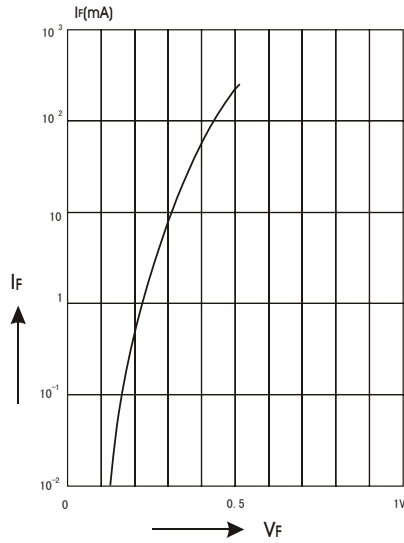


Figure 2. Typical high current forward conduction curve  $t_p=300ms$ , duty cycle=2%

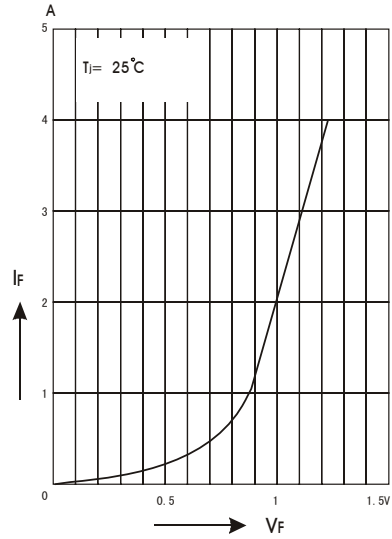


Figure 3. Typical non repetitive forward surge current versus pulse width

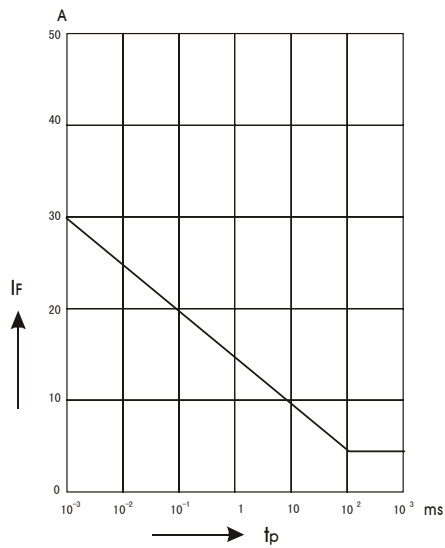


Figure 4. Typical variation of reverse current at various temperatures

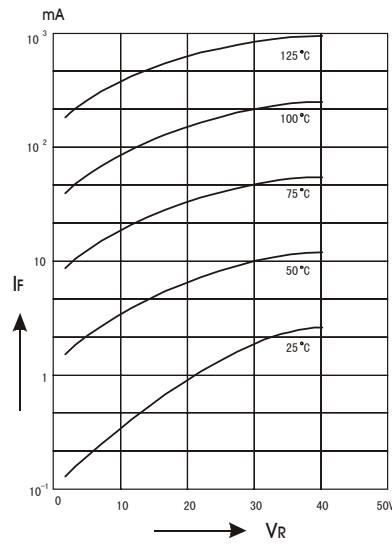


Figure 5. Blocking deration versus temperature at various average forward currents

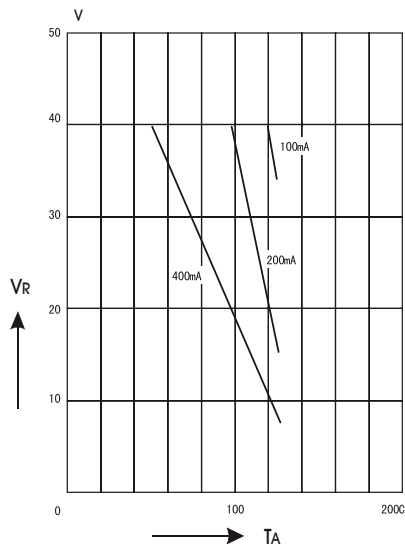
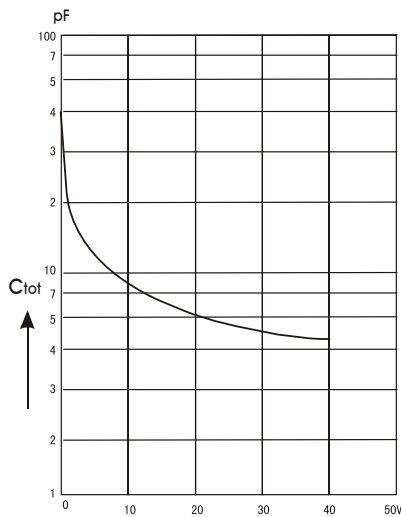


Figure 6. Typical capacitance versus reverse voltage





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## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel; 10Kpcs/Reel
(Part Number)-AP	Ammo Packing;5Kpcs/AmmoBox
(Part Number)-BP	Bulk;500pcs/Bag

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