

**Micro Commercial Components** 

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# SD103A THRU SD103C

## **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

# Small Signal Schottky Diodes

#### 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

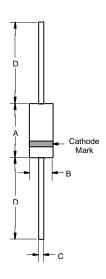
Maximum Ratings @ 25°C Unless Otherwise Specified

Characteristic	Symbol	SD103A	SD103B	SD103C
Peak Repetitive Reverse Voltage	Vrrm			
Working Peak Reverse Voltage	VRWM	40V	30V	20V
DC Blocking Voltage	$V_R$			
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28V	21V	14V
Maximum sigle cycle surge 60Hz sine wave	Ігѕм	15A		
Power Dissipation(Note 2)	Pd	400mW		
Thermal Resistance, Junction to Ambient	R	300K/W		
Junction Tmperature	Tj		125°C	
Operation/Storage Temp. Range	Тѕтс	-55 to +150°C		

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Туре	Max	Test Condition
SD103A			5.0uA	VR=30V
Leakage SD103B	I <sub>R</sub>		5.0uA	V <sub>R</sub> =20V
Current SD103C			5.0uA	V <sub>R</sub> =10V
Maximum Forward	VFM		0.37V	I <sub>F</sub> =20mA
Voltage Drop			0.60V	I <sub>F</sub> =200mA
Junction Capacitance	Cj	50pF		V <sub>R</sub> =0V, f=1.0MHz
Reverse Recovery Time	trr	10ns		I <sub>F</sub> =I <sub>R</sub> =50mA, recover to
				200mA/0.1I <sub>R</sub>

**DO-35** 



DIMENSIONS					
	INCHES	S MM			
DIM	MIN	MAX	MIN	MAX	NOTE
Α		.166		4.2	
В		.079		2.00	
С		.020		.52	
D	1.000		25.40		

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

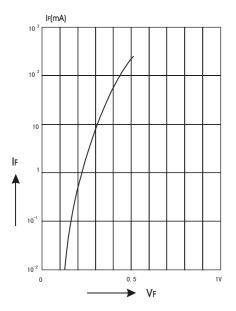


Figure 3. Typical non repetitive forward surge current versus pulse width

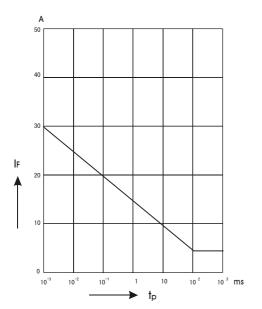


Figure 2. Typical high current forward conduction curve  $t_p$ =300ms,duty cycle=2%

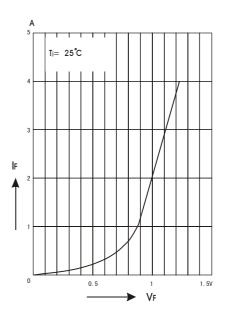
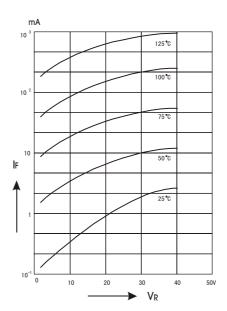


Figure 4. Typical variation of reverse current at various temperatures



## SD103A thru SD103C



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

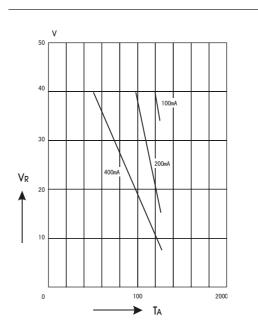
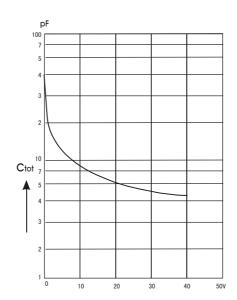


Figure 6. Typical capacitance versus reverse voltage





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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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