Obsolete

Micro Commercial Components

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20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

SD103A THRU SD103C

Small Signal Schottky Diodes

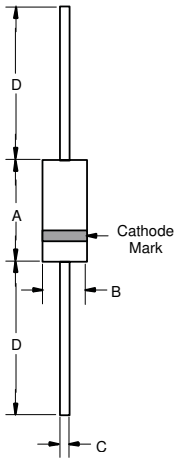
Features

- 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

DO-35



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

Maximum Ratings @25°C Unless Otherwise Specified

Characteristic	Symbol	SD103A	SD103B	SD103C
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40V	30V	20V
RMS Reverse Voltage	$V_{R(RMS)}$	28V	21V	14V
Maximum sigle cycle surge 60Hz sine wave	I_{FSM}	15A		
Power Dissipation(Note 2)	P_d	400mW		
Thermal Resistance, Junction to Ambient	R	300K/W		
Junction Tmperature	T_j	125°C		
Operation/Storage Temp. Range	T_{STG}	-55 to +150°C		

Electrical Characteristics @25°C Unless Otherwise Specified

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

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

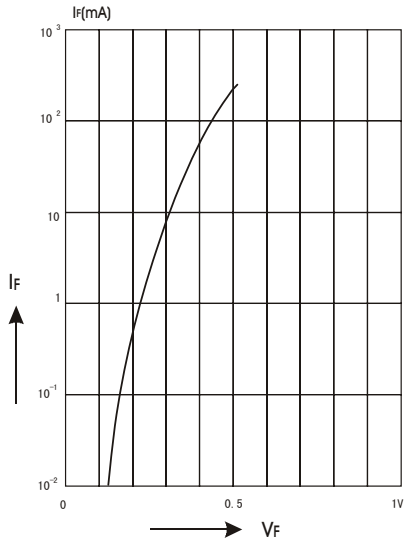


Figure 2. Typical high current forward conduction curve t_p=300ms,duty cycle=2%

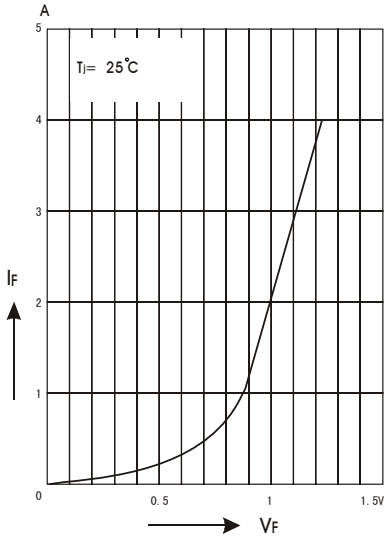


Figure 3. Typical non repetitive forward surge current versus pulse width

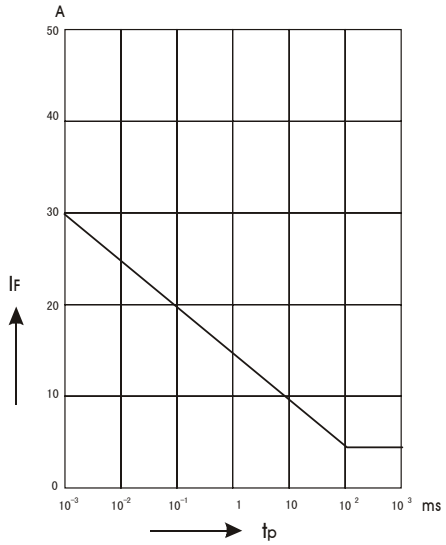


Figure 4. Typical variation of reverse current at various temperatures

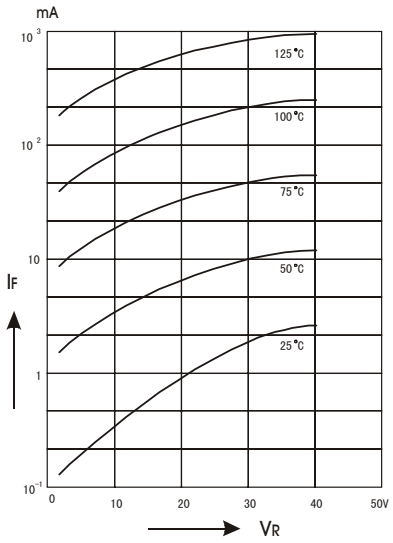


Figure 5. Blocking deration versus temperature at various average forward currents

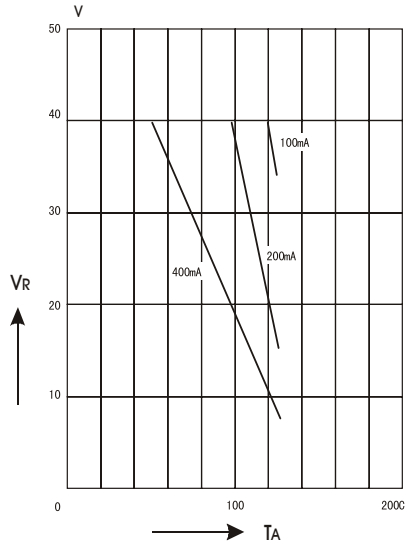
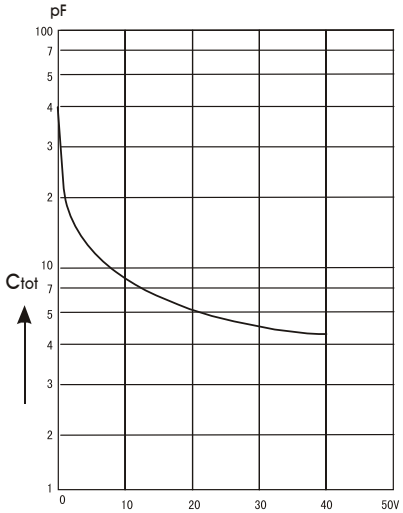


Figure 6. Typical capacitance versus reverse voltage



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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