



**THE DATASHEET OF  
SD103ATW-TP**



**Features**

- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Low Forward Voltage Drop and Low Leakage Current
- Guard Ring Construction for Transient Protection
- Fast Switching
- Three Fully Isolated Schottky Diodes
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

**Maximum Ratings**

- Operating Junction Temperature Range: 125°C
- Storage Temperature Range: -55°C to +125°C
- Thermal Resistance: 500°C/W Junction To Ambient

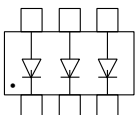
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SD103ATW	KLL	40V	28V	40V

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

Forward Continuous Current(Note1)	$I_{FM}$	350mA	
Average Rectified Output Current(Note2)	$I_O$	175mA	
Peak Forward Surge Current	$I_{FSM}$	1A	$t \leq 10ms$
Power Dissipation	$P_d$	200mW	
Reverse Breakdown Voltage	$V_{BR}$	40V(Min)	$I_R = 100\mu A_{dc}(\text{note.2})$
Reverse Voltage Leakage Current(Note3)	$I_R$	2 $\mu A$ (Max) 5 $\mu A$ (Max)	$V_R = 10V$ $V_R = 30V$
Forward Voltage(Note3)	$V_F$	0.27V(Max) 0.32V(Max) 0.37V(Max) 0.50V(Max)	$I_F = 1mA$ $I_F = 5mA$ $I_F = 20mA$ $I_F = 100mA$
Total Capacitance	$C_T$	50pF(Max)	$V_R = 0V, f = 1.0MHz$
Reverse Recovery Time	$t_{rr}$	10ns(Max)	$I_F = I_R = 200mA,$ $I_{rr} = 0.1 * I_R, R_L = 100\Omega$

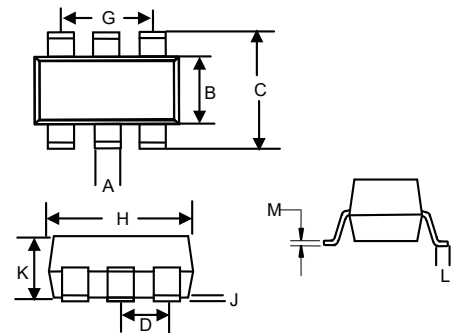
- Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.  
 2. This is the maximum rating of single Diode (D1 or D2 or D3). In the case of using two or three diodes, the maximum ratings per diode are 75% of the ratings for single diode operation.  
 3. Short duration test pulse used to minimize self-heating effect.

**Internal Structure:**



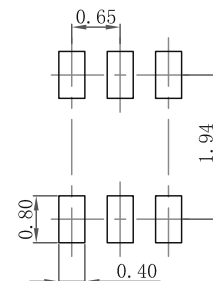
**200 mW  
Schottky Barrier  
Diode**

**SOT-363**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.006	0.014	0.15	0.35	
B	0.045	0.053	1.15	1.35	
C	0.079	0.096	2.00	2.45	
D		0.026	0.65 Nominal		
G	0.047	0.055	1.20	1.40	
H	0.071	0.087	1.80	2.20	
J		0.004		0.10	
K	0.031	0.043	0.80	1.10	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

**Suggested Solder Pad Layout**



**Curve Characteristics**

Fig. 1 - Forward Characteristics

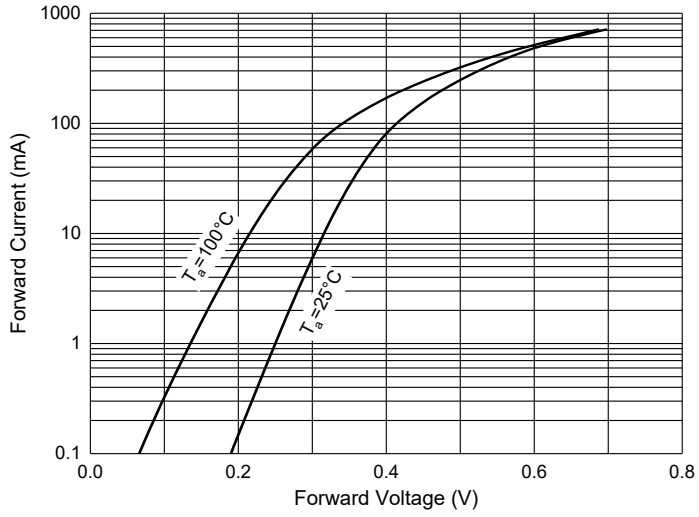


Fig. 2 - Reverse Characteristics

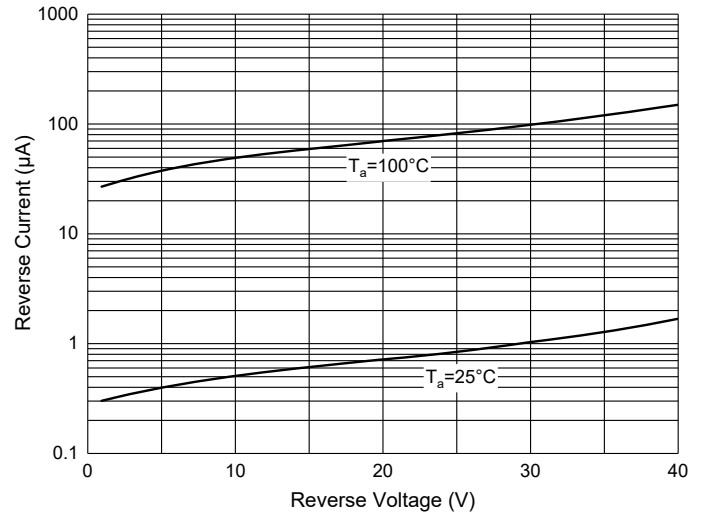


Fig. 3 - Capacitance Characteristics

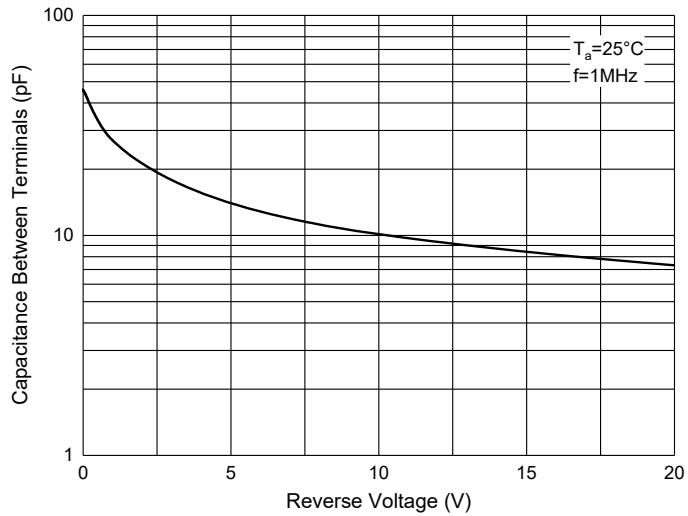
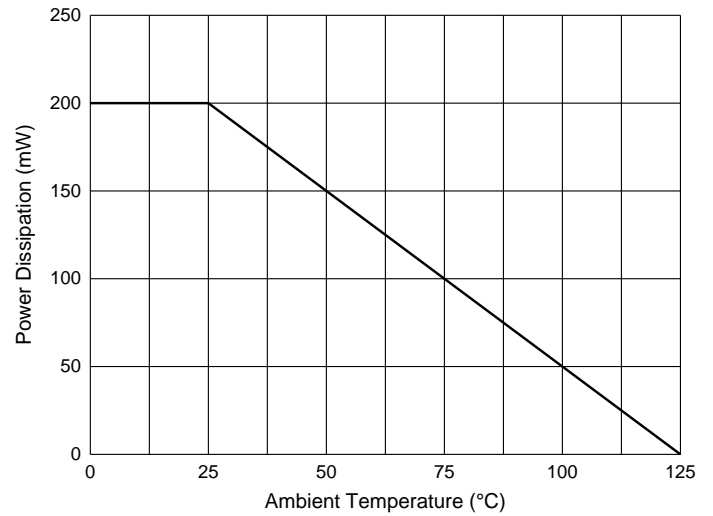


Fig. 4 - Power Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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