



SD103ATW

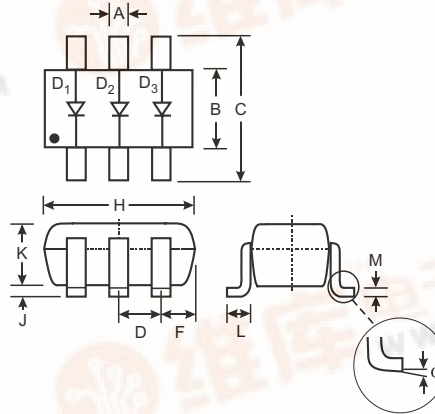
SURFACE MOUNT SCHOTTKY BARRIER DIODE ARRAY

Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Switching
- Low Leakage Current
- Three Fully Isolated Schottky Diodes

Mechanical Data

- Case: SOT-363, Plastic
- Case material - UL Flammability Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Polarity: See Diagram
- Leads: Solderable per MIL-STD-202, Method 208
- Marking: KLL
- Weight: 0.006 grams (approx.)
- Ordering Information, See Below



SOT-363		
Dim	Min	Max
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
F	0.30	0.40
H	1.80	2.20
J	—	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.25
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	SD103ATW	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Forward Continuous Current (Note 1)	I_{FM}	350	mA
Average Rectified Current (Note 1)	I_O	175	mA
Non-Repetitive Peak Forward Surge Current (Note 1)	I_{FSM}	1.0	A
@ $t \leq 10\text{ms}$			
Power Dissipation	P_d	200	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +125	$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	40	—	—	V	$I_{RS} = 100\mu\text{A}$ (pulsed)
Forward Voltage Drop (Note 2)	V_F	—	0.27	—	V	$I_F = 1\text{mA}$
		—	0.32	—	V	$I_F = 5\text{mA}$
		—	0.36	0.37	V	$I_F = 20\text{mA}$
		—	0.44	0.50	V	$I_F = 100\text{mA}$
Reverse Current (Note 2)	I_R	—	0.2	2.0	μA	$V_R = 10\text{V}$
		—	0.4	5.0	μA	$V_R = 30\text{V}$
Total Capacitance	C_T	—	50	—	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	10	—	ns	$I_F = I_R = 200\text{mA}$, $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

Ordering Information (Note 3)

Device	Packaging	Shipping
SD103ATW-7	SOT-363	3000/Tape & Reel

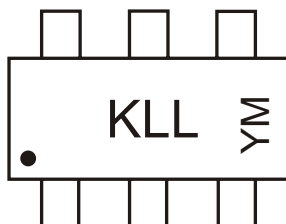
Notes: 1. This is the maximum rating of single Diode (D_1 or D_2 or D_3). In the case of using two or three diodes, the maximum ratings per diode are 75% of the ratings for single diode operation.

2. Short duration test pulse used to minimize self-heating effect.

3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.



Marking Information

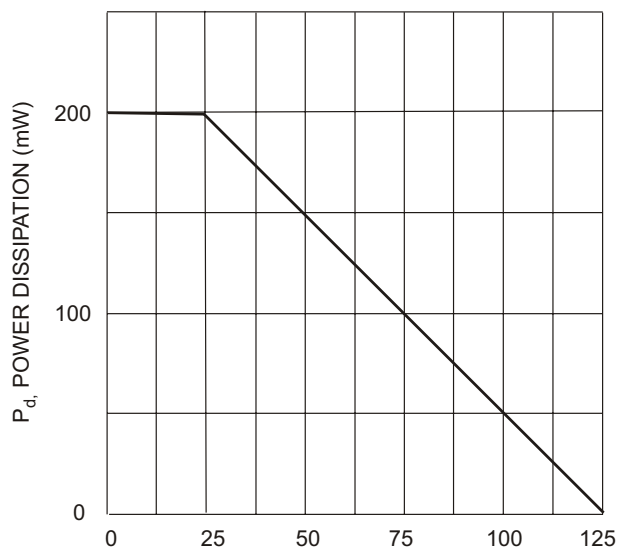


KLL = Product Type Marking Code
YM = Date Code Marking
Y = Year ex: N = 2002
M = Month ex: 9 = September

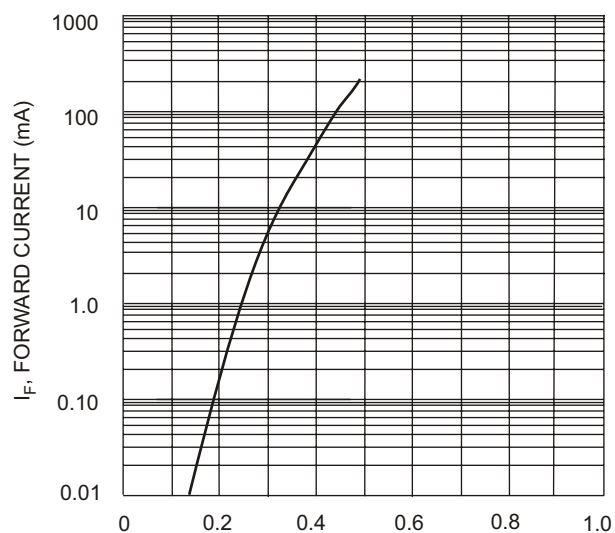
Date Code Key

Year	2002	2003	2004	2005	2006	2007	2008	2009
Code	N	O	P	S	T	U	V	W

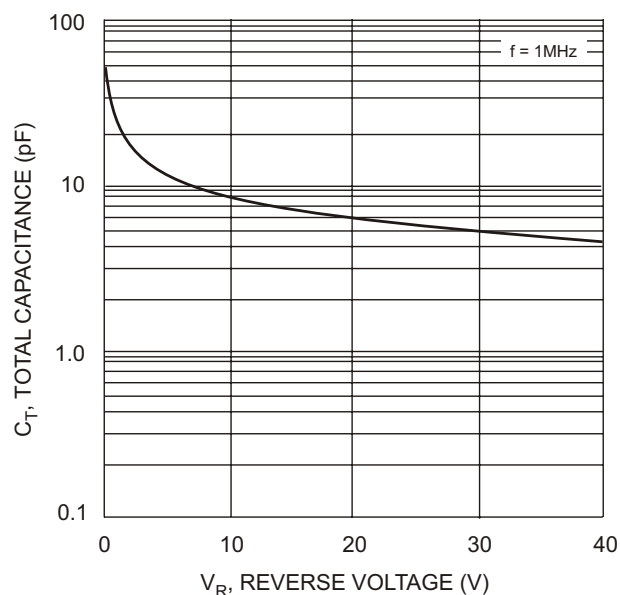
Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D



T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Power Derating Curve



V_F , FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



V_R , REVERSE VOLTAGE (V)
Fig. 3 Typ. Total Capacitance vs Reverse Voltage