

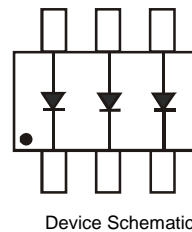
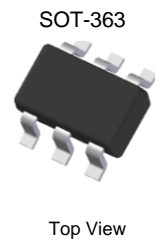
SD103ATW-7-F

Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Switching
- Low Leakage Current
- Three Fully Isolated Schottky Diodes
- **Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. “Green” Device (Note 3)**

Mechanical Data

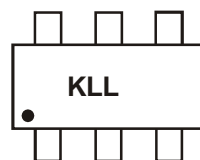
- Case: SOT-363
- Case Material: Molded Plastic, “Green” Molding Compound;
UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Polarity: See Diagram
- Terminals: Matte Tin Finish Annealed over Alloy 42 Leadframe
(Lead Free Plating); Solderable per MIL-STD-202, Method 208 ③
- Weight: 0.006 grams (Approximate)



Ordering Information (Note 4)

Part Number	Case	Packaging
SD103ATW-7-F	SOT-363	3,000/Tape & Reel

Marking Information



SD103ATW-7-F

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	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 5)	I _{FM}	350	mA
Average Rectified Current (Note 5)	I _O	175	mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Note 5)	I _{FSM}	1.0	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 6)	P _D	200	mW
Thermal Resistance, Junction to Ambient Air (Note 6)	R _{θJA}	500	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +125	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 7)	V _{(BR)R}	40	—	—	V	I _R = 100μA
Forward Voltage Drop	V _F	—	0.27	—	V	I _F = 1mA
		—	0.32	—	V	I _F = 5mA
		—	0.36	0.37	V	I _F = 20mA
		—	0.44	0.50	V	I _F = 100mA
Leakage Current (Note 7)	I _R	—	0.2	2.0	μA	V _R = 10V
		—	0.4	5.0	μA	V _R = 30V
Total Capacitance	C _T	—	50	—	pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	10	—	ns	I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

- Notes:
- 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.
 - Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
 - Short duration pulse test used to minimize self-heating effect.

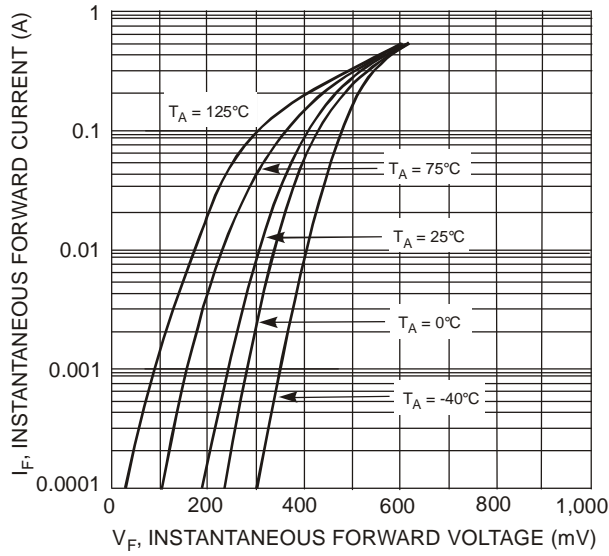


Fig. 1 Typical Forward Characteristics

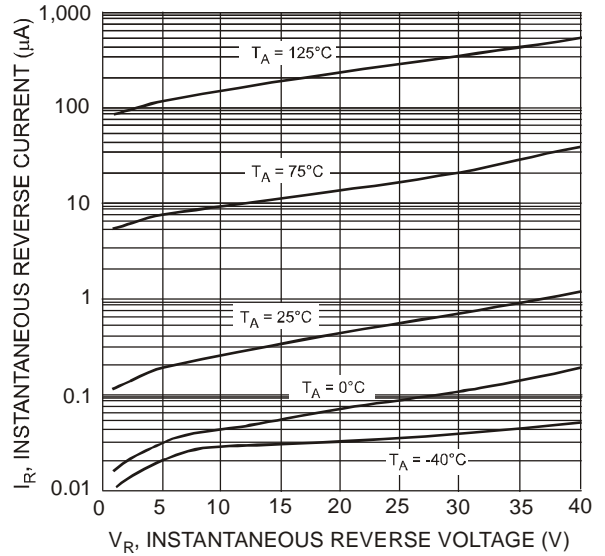


Fig. 2 Typical Reverse Characteristics

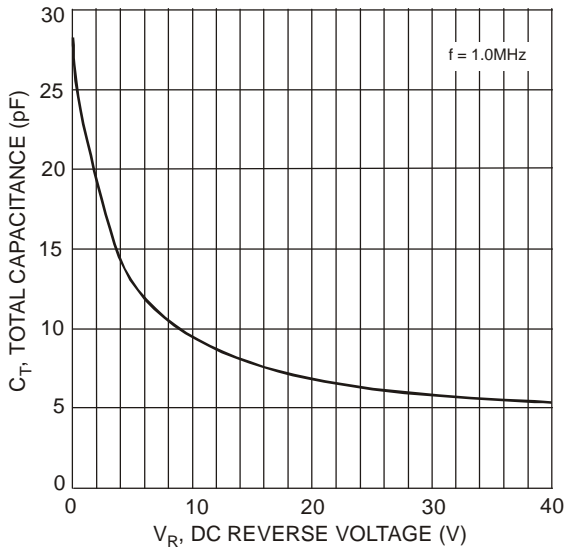


Fig. 3 Total Capacitance vs. Reverse Voltage

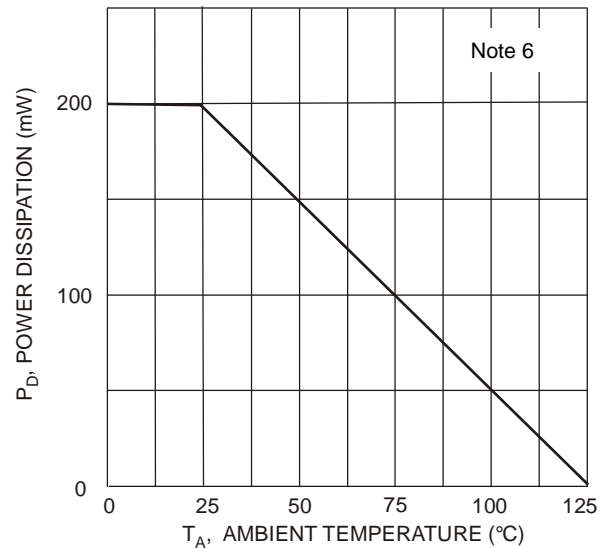
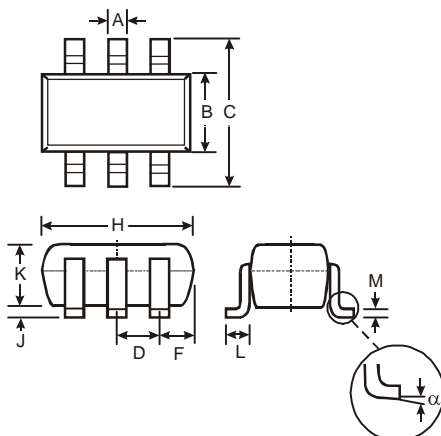


Fig. 4 Power Derating Curve

Package Outline Dimensions



SOT-363			
Dim	Min	Max	Typ
A	0.10	0.30	0.25
B	1.15	1.35	1.30
C	2.00	2.20	2.10
D	0.65 Typ		
F	0.40	0.45	0.425
H	1.80	2.20	2.15
J	0	0.10	0.05
K	0.90	1.00	1.00
L	0.25	0.40	0.30
M	0.10	0.22	0.11
α	0°	8°	-
All Dimensions in mm			