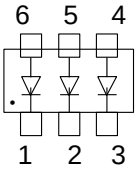
SD103ATW

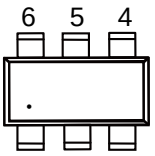
Surface Mount Schottky Barrier Diodes

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)



Schematic Diagram



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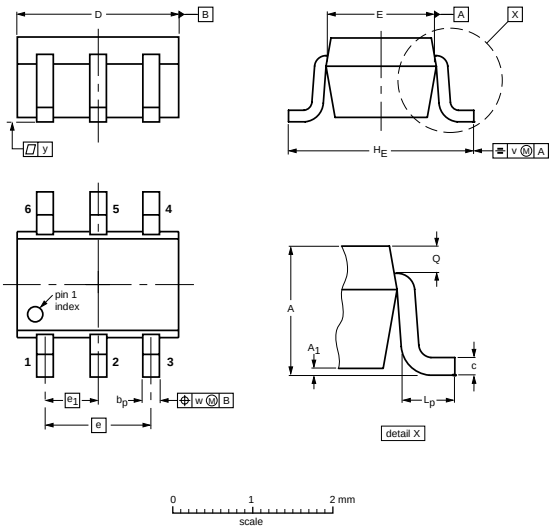

DIMENSIONS (mm are the original dimensions)

UNIT	A	A_1 max	b_p	c	D	E	e	e_1	H_E	L_p	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1

Absolute Maximum Ratings (@ T_C = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Reverse Voltage	V_R	40	V
Average Forward Rectified Current	$I_{F(AV)}$	350	mA
Non-Repetitive Peak Forward Surge Current at t = 1 s	I_{FSM}	2	A
Power Dissipation	P_{tot}	200	mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 125	°C

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Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at I_R =10uA	$V_{(BR)R}$	40	-	-	V
Reverse Leakage Current at V_R =30V	I_R	-	-	5	μA
Forward Voltage at I_F = 20 mA at I_F = 200 mA	V_F	- -	- -	0.37 0.6	V
Total Capacitance at V_R = 0 V, f = 1 MHz	C_T	-	50	-	pF
Reverse Recovery Time at I_F = I_R = 200 mA, I_{rr} = 0.1 I_R, R_L = 100 Ω	t_{rr}	-	10	-	ns

RATING AND CHARACTERISTIC CURVES (SD103ATW)

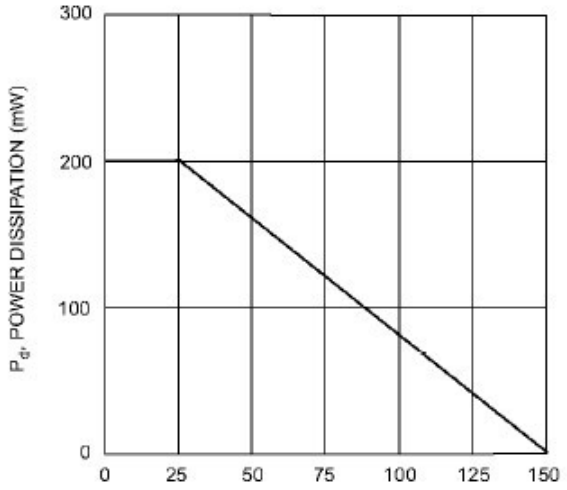

Fig. 1 Power Derating Curve

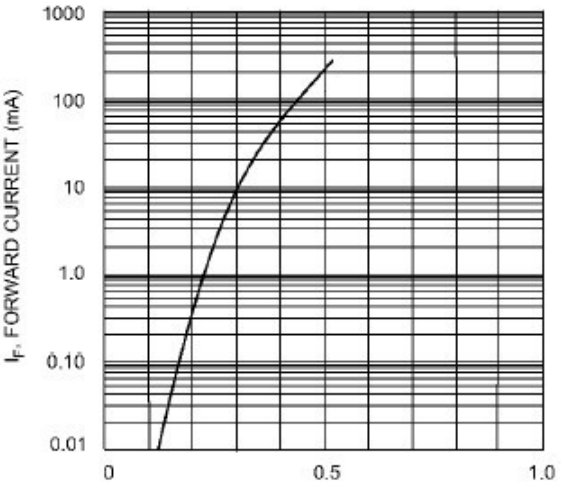

Fig. 2 Typical Forward Characteristics

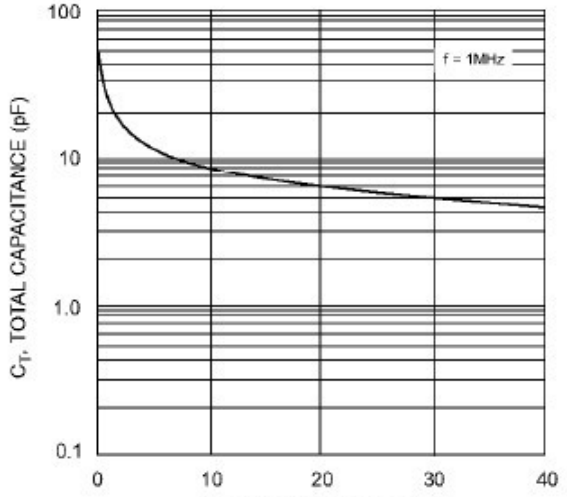

Fig. 3 Total Capacitance vs Reverse Voltage