LITE-ON SEMICONDUCTORS

SD101AW, BW, CW

SURFACE MOUNT
SCHOTTKY BARRIER DIODE

REVERSE VOLTAGE – 40 to 60 Volts
FORWARD CURRENT – 0.015 Ampere

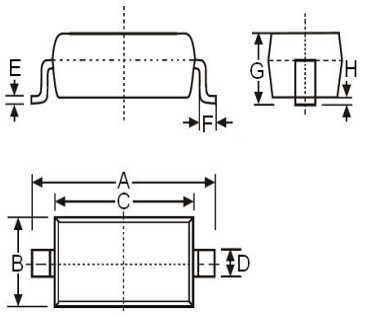
FEATURES

- Extremely low VF drop
- Guard Ring Construction for Transient protection
- Negligible Reverse Recovery Time

MECHANICAL DATA

- Case: SOD-123 Plastic
- Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture Sensitivity: Level 1 per J-STD-020D
- Lead Free in RoHS 2002/95/EC Compliant

SOD-123



SOD-123		
Dim.	Min.	Max.
A	3.55	3.85
B	1.50	1.70
C	2.60	2.80
D	0.45	0.65
E	0.08	0.15
F	0.25	0.45
G	1.05	1.25
H	0.00	0.10
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Symbol	SD101AW	SD101BW	SD101CW	Units
Repetitive Peak reverse voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RM}	60	50	40	V
RMS Reverse Voltage	V_R	42	35	28	
Forward Continuous Current	I_{FM}	15			mA
Non-Repetitive Peak Forward @t<1.0s Surge Current @t=10μs	I_{FSM}	50 2			mA A
Power Dissipation	P_D	400			mW
Thermal Resistance Junction to Ambient	$R_{\Theta JA}$	300			℃/W
Operating Temperature Range	T_J	125			℃
Storage Temperature Range	T_{STG}	-65~+125			℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	SD101AW	SD101BW	SD101CW	Unit
Reverse Breakdown Voltage	I_R = 10uA	V_{BR}	60	50	40	V
Maximum Forward Voltage	I_F = 1mA I_F = 15mA	V_F	410 1000	400 950	390 900	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 50V V_R = 40V V_R = 30V	I_R	0.2 -- --	-- 0.2 --	-- -- 0.2	uA
Typical Diode Capacitance	V_R =0V,f=1MHz	C_D	2	2.1	2.2	pF
Reverse Recovery time	Irr=0.5mA, IR=IF=5mA RL=100Ω	trr	1			nS

REV. 2, Oct-2010, KSHR53

RATING AND CHARACTERISTIC CURVES
SD101AW, BW, CW

FIG.1- TYPICAL FORWORD CHARACTERISTICS

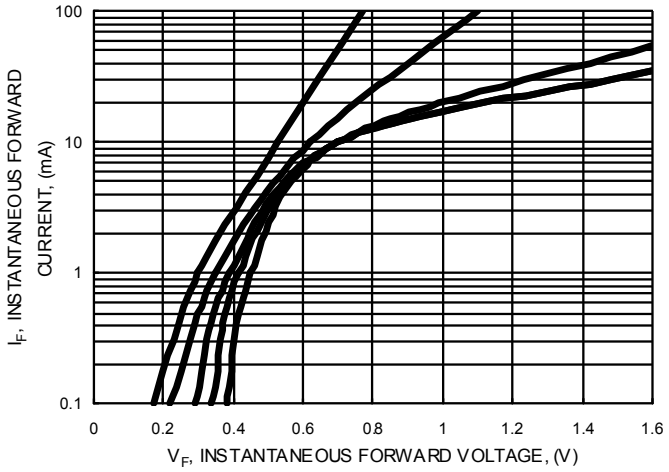


FIG.2- TYPICAL REVERSE CHARACTERISTICS

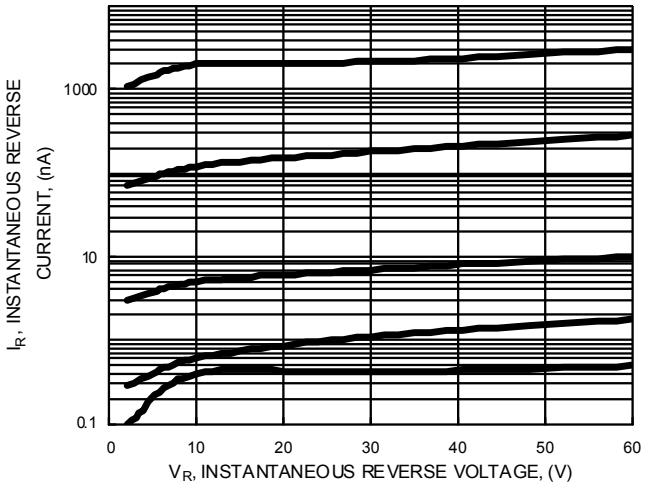


FIG.3- TYPICAL JUNCTION CAPACITANCE

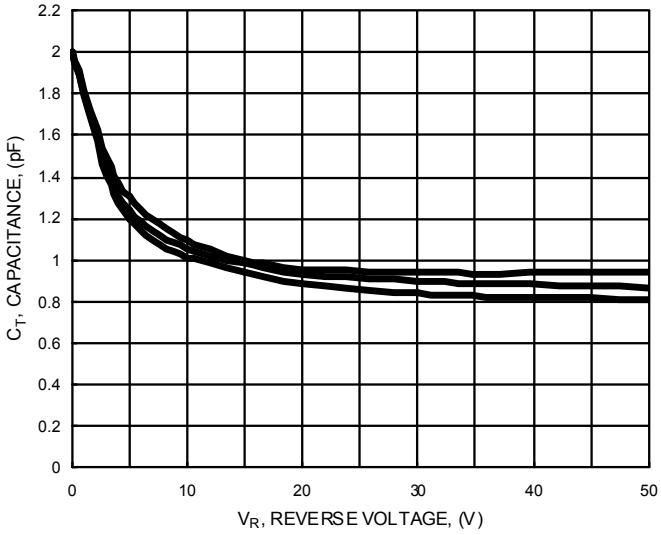
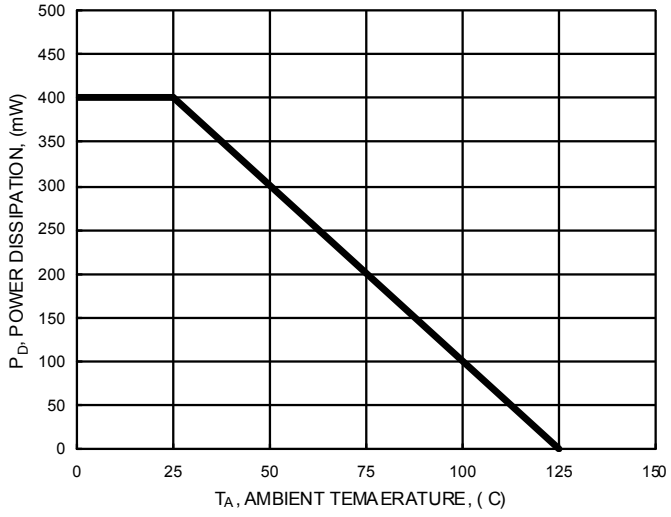


FIG.4- POWER DERATING CURVE



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
SD101AW	S1	
SD101BW	S2	
SD101CW	S3	

Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.