LITE-ON SEMICONDUCTORS

RB501V-40

SURFACE MOUNT
SCHOTTKY BARRIER DIODE

REVERSE VOLTAGE – 40 Volts
FORWARD CURRENT – 0.1 Ampere

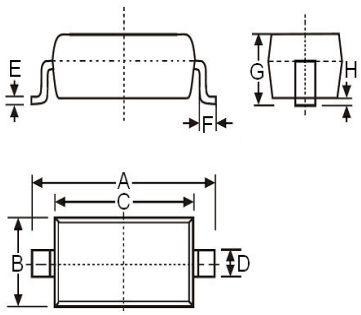
FEATURES

- Extremely low VF drop
- Very Small Conduction Losses

MECHANICAL DATA

- Case: SOD-323 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-323



SOD-323		
Dim.	Min.	Max.
A	2.50	2.70
B	1.20	1.40
C	1.60	1.80
D	0.25	0.35
E	0.08	0.15
F	0.25	0.40
G	---	1.0
H	0.00	0.10
Dimensions in millimeter		

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

Characteristic	Symbol	RB501V-40	Units
Peak Reverse Voltage	V_{RM}	45	V
DC reverse voltage	V_R	40	
Average Rectified Forward Current	I_O	100	mA
Peak Forward Surge Current @ tp=8.3ms	I_{FSM}	1	A
Power Dissipation	P_D	250	mW
Operating Temperature Range	T_J	125	℃
Storage Temperature Range	T_{STG}	-55~+125	℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	RB501V-40	Unit
Reverse Breakdown Voltage	I_R = 100uA	V_{BR}	40	V
Maximum Forward Voltage	I_F = 10mA I_F = 100mA	V_F	340 550	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 10V	I_R	30	uA
Typical Diode Capacitance	V_R =10V,f=1MHz	C_D	6	pF

REV. 1, Oct-2010, KSHR40

RATING AND CHARACTERISTIC CURVES
RB501V-40

FIG.1- TYPICAL FORWORD CHARACTERISTICS

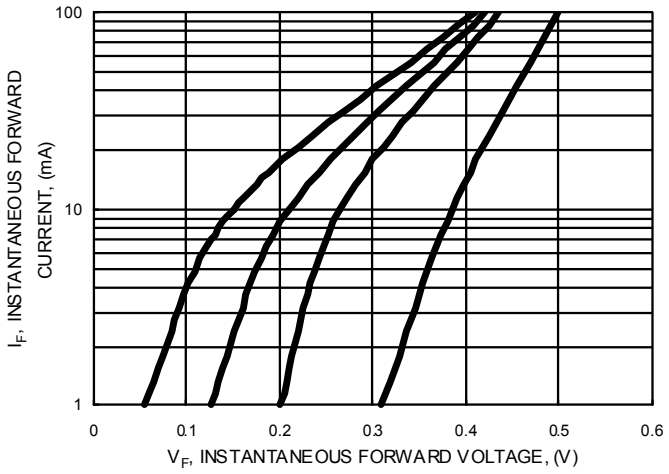


FIG.2- TYPICAL REVERSE CHARACTERISTICS

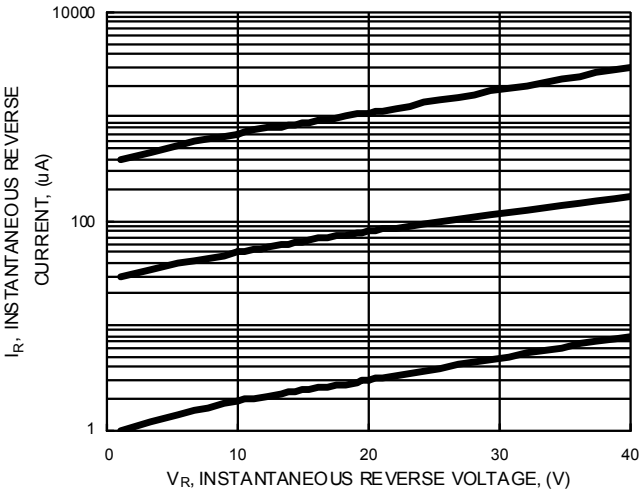


FIG.3- TYPICAL JUNCTION CAPACITANCE

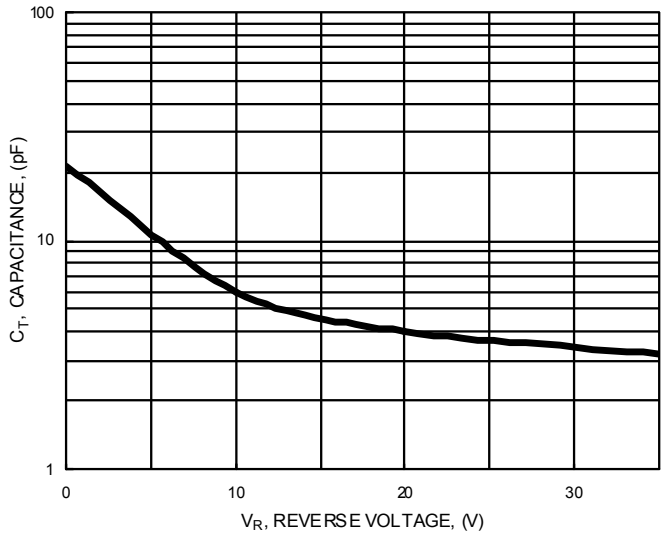
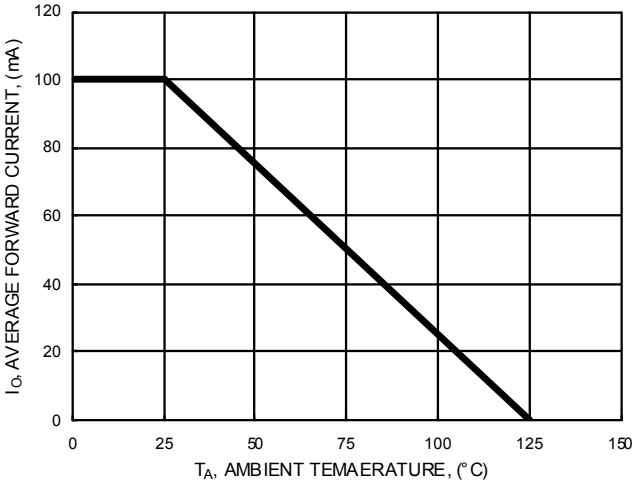


FIG.4- FORWARD CURRENT DERATING CURVE



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
RB501V-40	4	1 ○—▶|—○ 2

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