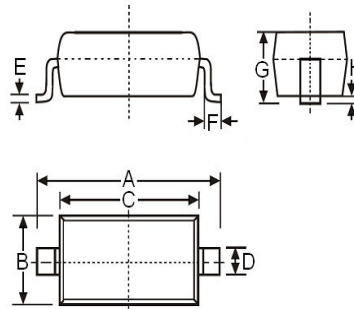


**SURFACE MOUNT
SCHOTTKY BARRIER DIODE**
**REVERSE VOLTAGE – 20 to 40 Volts
FORWARD CURRENT – 0.5 Ampere**
FEATURES

- Low Forward Voltage Drop
- High Conductance
- Guard Ring Construction for Transient Protection

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°C unless otherwise specified

Characteristic	Symbol	B0520LW	B0530W	B0540W	Units
Repetitive Peak Reverse Voltage	V _{RRM}				V
Working Peak Reverse Voltage	V _{RWM}	20	30	40	
DC Blocking Voltage	V _R				
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	V
Average Rectified Output Current	I _F	0.5			A
Peak Forward Surge Current	I _{FSM}	5.5			A
Power Dissipation	P _D	410			mW
Thermal Resistance Junction to Ambient	R _{θJA}	305			°C/W
Operating Temperature Range	T _J	150			°C
Storage Temperature Range	T _{STG}	-65~+150			°C
Voltage Rate of Change	dv/dt	1000			V/μs

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Test Condition	Symbol	B0520LW	B0530W	B0540W	Unit
Reverse Breakdown Voltage	I _R = 20uA	V _{BR}	--	--	40	V
	I _R = 200uA		--	30	--	
	I _R = 250uA		20	--	--	
Maximum Forward Voltage	I _F = 0.1A	V _F	300	375	--	mV
	I _F = 0.5A		385	430	510	
	I _F = 1.0A		--	--	620	
Maximum DC Reverse Current at Rated DC Blocking Voltage	V _R = 10V	I _R	75	--	--	uA
	V _R = 15V		--	20	--	
	V _R = 20V		250	--	10	
	V _R = 30V		--	200	--	
	V _R = 40V		--	--	20	
Typical Junction Capacitance	V _R = 1.0V, f = 1MHz	C _T	170			pF

RATING AND CHARACTERISTIC CURVES

B0520LW thru B0540W

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

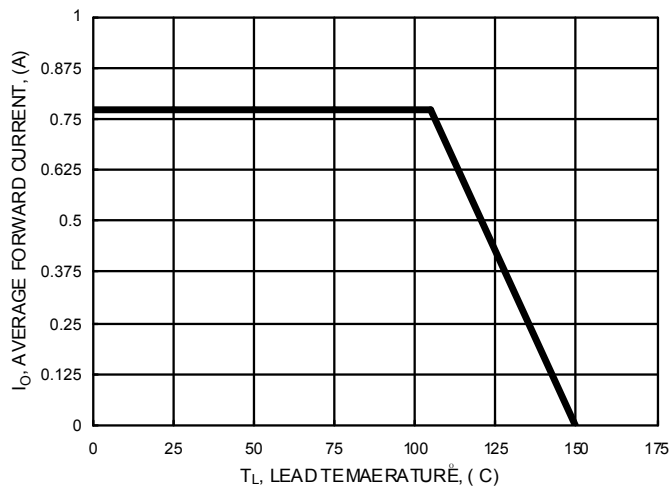


FIG.2- TYPICAL FORWARD CHARACTERISTICS

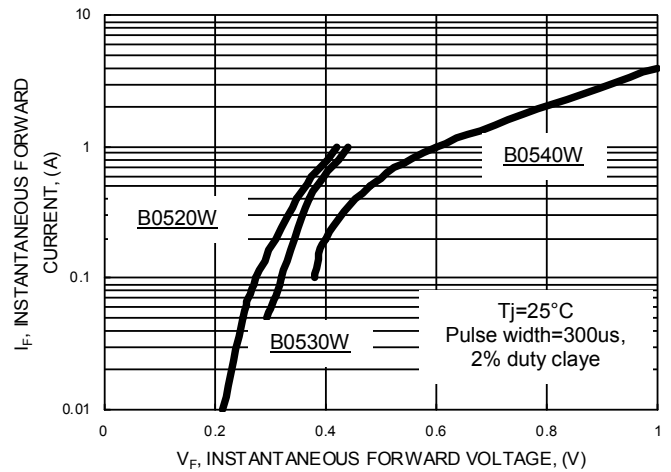


FIG.3- TYPICAL JUNCTION CAPACITANCE

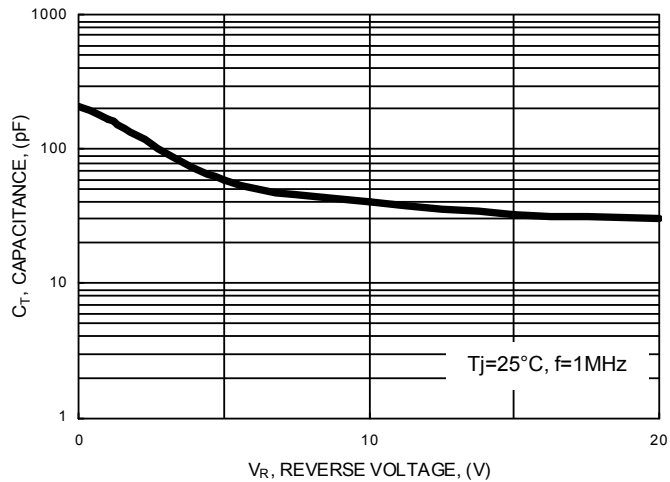


FIG.4- TYPICAL REVERSE CHARACTERISTICS

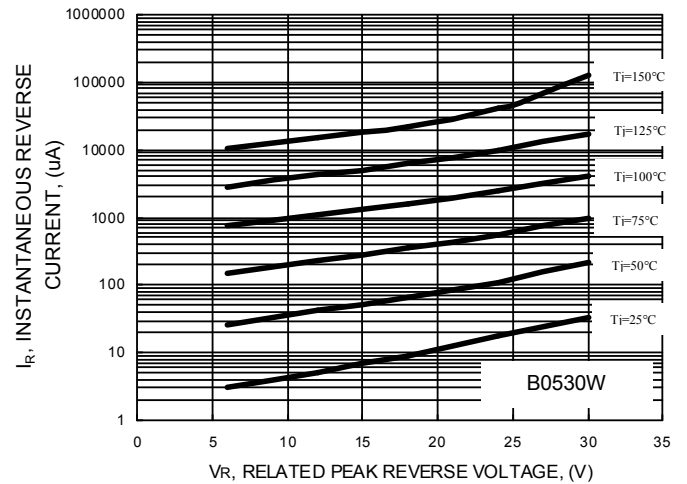
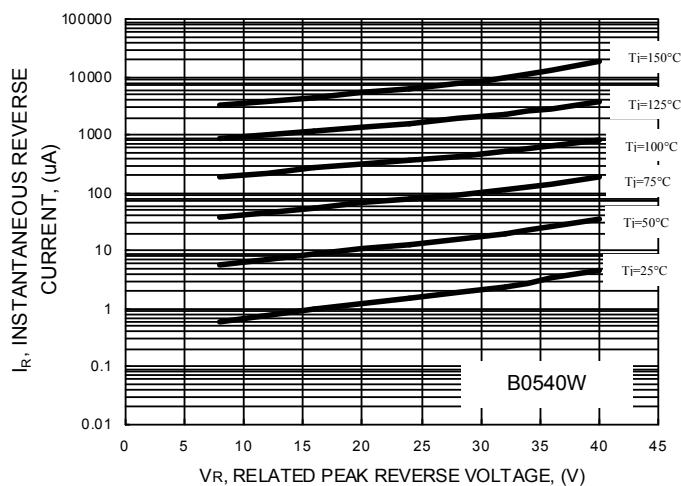


FIG.5- TYPICAL REVERSE CHARACTERISTICS



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
B0520LW	SD	
B0530W	SE	
B0540W	SF	

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