



Schottky Barrier Diode

B0520LW/B0530LW/B0540LW

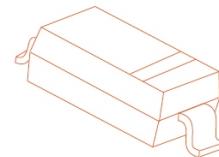
Crownpo Technology
LIZ Electronics(Kunshan)

Features

- * Low Forward Voltage Drop
- * Guard Ring Construction for Transient protection
- * High Conductance
- * Also Available in Lead Free Version

SOD-123

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Marking Code B0520LW : SD
B0530LW : SE
B0540LW : SF

Maximum Ratings @ $T_A=25^\circ\text{C}$

Parameter	Symbol	B0520LW	B0530LW	B0540LW	Unit
Peak Repetitive Peak reverse voltage	V_{RRM}				
Working Peak Reverse Voltage	V_{RWM}	20	30	40	V
DC Blocking Voltage	V_R				
RMS Reverse Voltage Reverse voltage (DC)	$V_{R(RMS)}$	14	21	28	V
Average rectified output Current	I_o		0.5		A
Forward current surge peak	I_{FSM}		5.5		A
Power dissipation	P_D		500		mW
Thermal Resistance Junction to Ambient	R_{BJA}		250		°C/W
Junction temperature	T_j		150		°C
Storage temperature	T_{STG}		-65~+150		°C
Voltage Rate of Change	dv/dt		1000		V/ @ S

Electrical Characteristic @ $T_A=25^\circ\text{C}$

Parameter	Symbol	B0520LW	B0530LW	B0540LW	Unit	Conditions
Minimum Reverse Breakdown Voltage	$V_{(BR)R}$	20	--	--	V	$I_R=250@ A$
		--	30	--		$I_R=200@ A$
		--	--	40		$I_R=20@ A$
Forward voltage	V_{F1}	0.320	0.375	--	V	$I_F=0.1A$
	V_{F2}	0.385	0.430	0.510		$I_F=0.5A$
	V_{F3}	--	--	0.62		$I_F=1A$
Reverse current	I_{R1}	75	--	--	@ A	$V_R=10V$
	I_{R2}	--	20	--		$V_R=15V$
Reverse current	I_{R3}	250	--	10	@ A	$V_R=20V$
	I_{R4}	--	130	--		$V_R=30V$
	I_{R5}	--	--	20		$V_R=40V$
Capacitance between terminals	C_T	--	--	170	pF	$V_R=0,f=1MHz$



Typical Characteristics

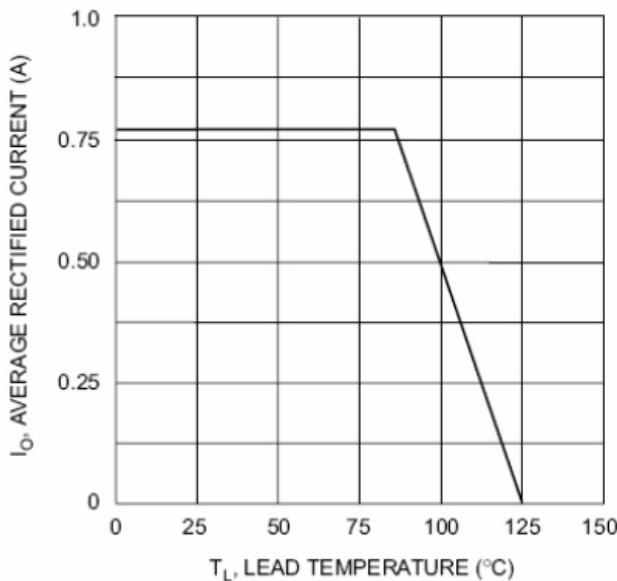


Fig. 1 Forward Current Derating Curve

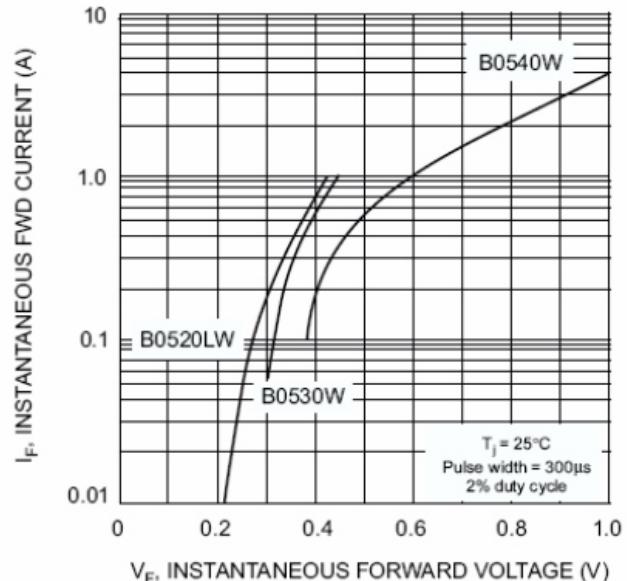


Fig. 2 Typical Forward Characteristics

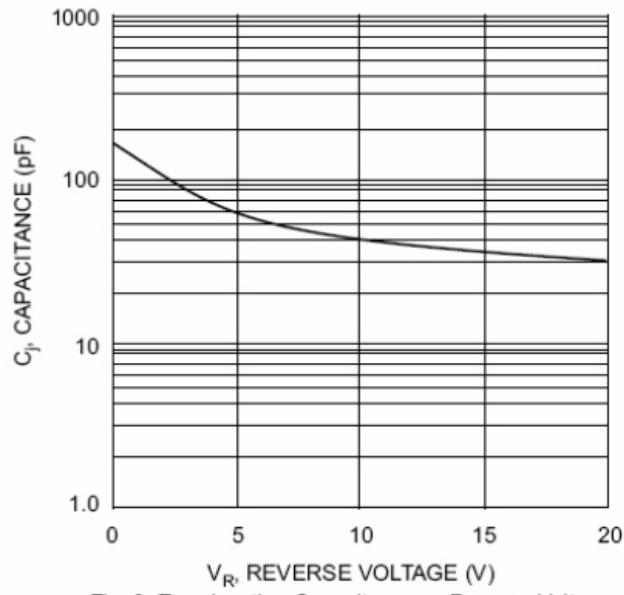


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage