



POWER SKY (H.K.) LTD.

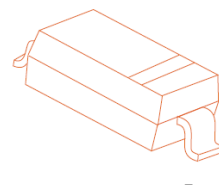
SOD-123 Plastic-Encapsulate Diodes

B0520LW/B0530W/B0540W

SCHOTTKY BARRIER DIODE

SOD-123

+



FEATURES

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

MARKING: B0520LW:SD

B0530W: SE

B0540W: SF

Maximum Ratings @T_A=25°C

Parameter	Symbol	B0520LW	B0530W	B0540W	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	$R_{\theta JA}$	250			°C/W
Junction temperature	T_j	150			°C
Storage temperature	T_{STG}	-65~+150			°C
Voltage Rate of Change	dv/dt	1000			V/ μ S

Electrical Characteristics @T_A=25°C

Parameter	Symbol	B0520LW	B0530W	B0540W	Unit	Conditions
Minimum Reverse Breakdown Voltage	$V_{(BR)R}$	20	--	--	V	$I_R=250 \mu A$
		--	30	--		$I_R=200 \mu A$
		--	--	40		$I_R=20 \mu A$
Forward voltage	V_{F1}	0.32	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	--	--	μA	$V_R=10V$
	I_{R2}	--	20	--		$V_R=15V$
Reverse current	I_{R3}	250	--	10	μA	$V_R=20V$
	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

B0520LW/B0530W/B0540W

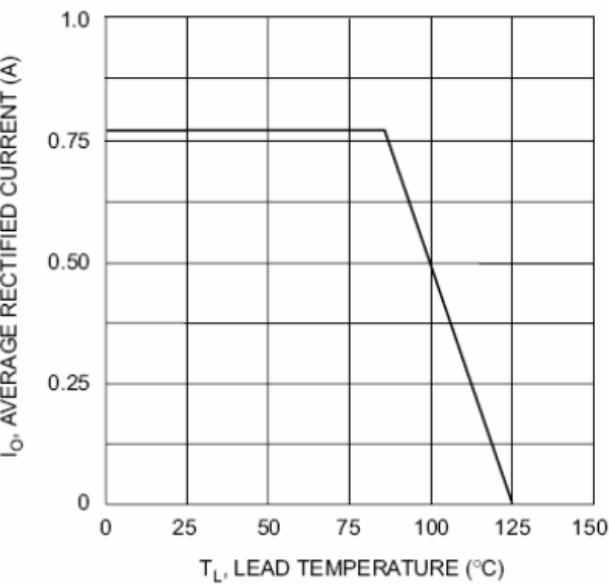


Fig. 1 Forward Current Derating Curve

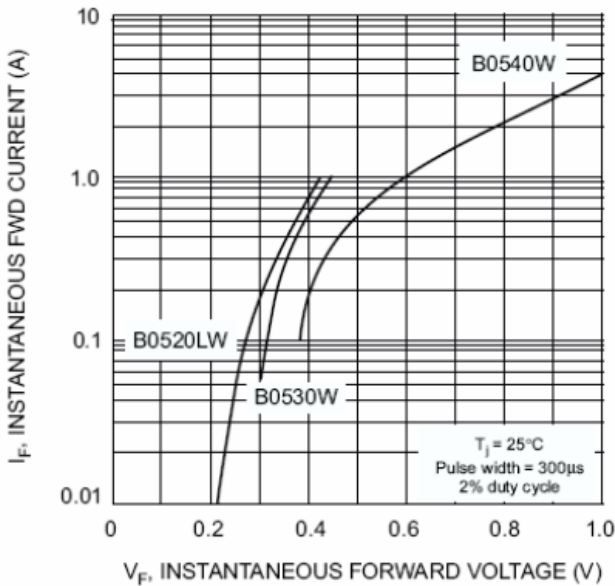


Fig. 2 Typical Forward Characteristics

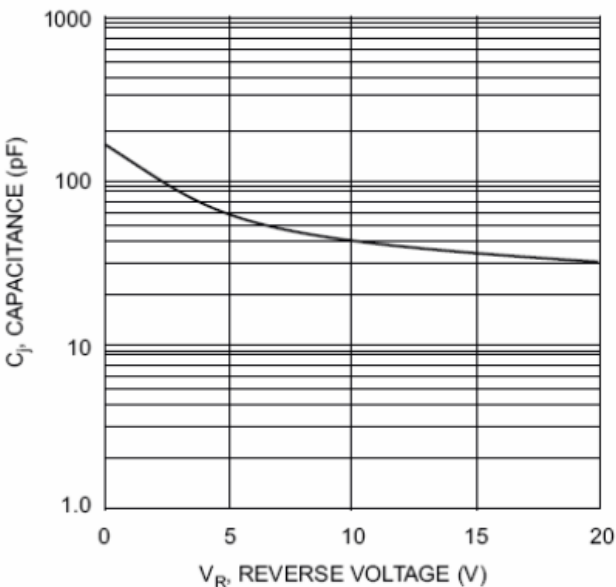


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage