

SCHOTTKY BARRIER DIODE

SOD-323

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FEATURES

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

MARKING: B0520WS: SD

B0530WS: SE

B0540WS: SF

Maximum Ratings @T_A=25°C

Parameter	Symbol	B0520WS	B0530WS	B0540WS	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	200			mW
Thermal Resistance Junction to Ambient	R _{θJA}	625			°C/W
Junction temperature	T _j	150			°C
Storage temperature	T _{STG}	-65~+150			°C
Voltage Rate of Change	dv/dt	1000			V/μS

Electrical Characteristics @T_A=25°C

Parameter	Symbol	B0520WS	B0530WS	B0540WS	Unit	Conditions
Minimum Reverse Breakdown Voltage	V _{(BR)R}	20	--	--	V	I _R =250 μ A
		--	30	--		I _R =500 μ A
		--	--	40		I _R =20 μ A
Forward voltage	V _{F1}	0.3	0.36	--	V	I _F =0.1A
	V _{F2}	0.385	0.45	0.510		I _F =0.5A
	V _{F3}	--	--	0.62		I _F =1A
Reverse current	I _{R1}	75	--	--	μA	V _R =10V
	I _{R2}	--	80	--		V _R =15V
Reverse current	I _{R3}	250	100	10	μA	V _R =20V
	I _{R4}	--	500	--		V _R =30V
	I _{R5}	--	--	20		V _R =40V
Capacitance between terminals	C _T	170	170	170	pF	V _R =0, f=1MHz

Typical Characteristics

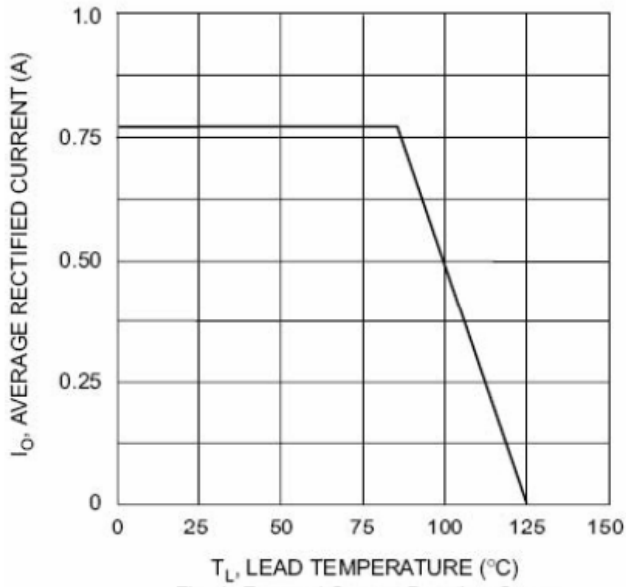


Fig. 1 Forward Current Derating Curve

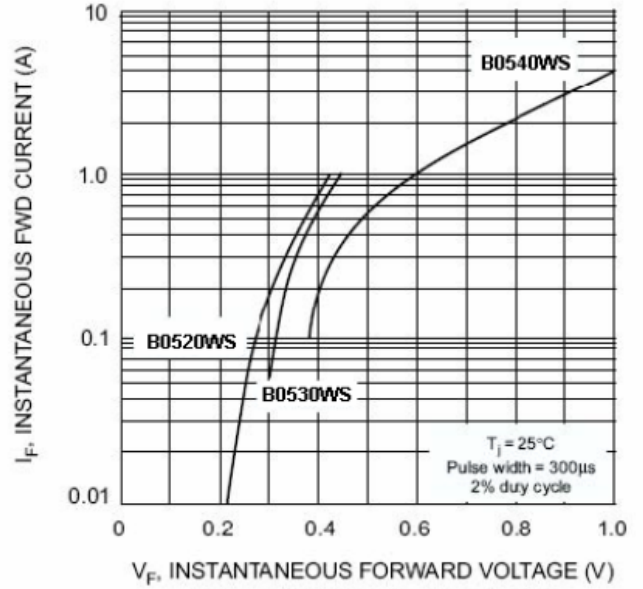


Fig. 2 Typical Forward Characteristics

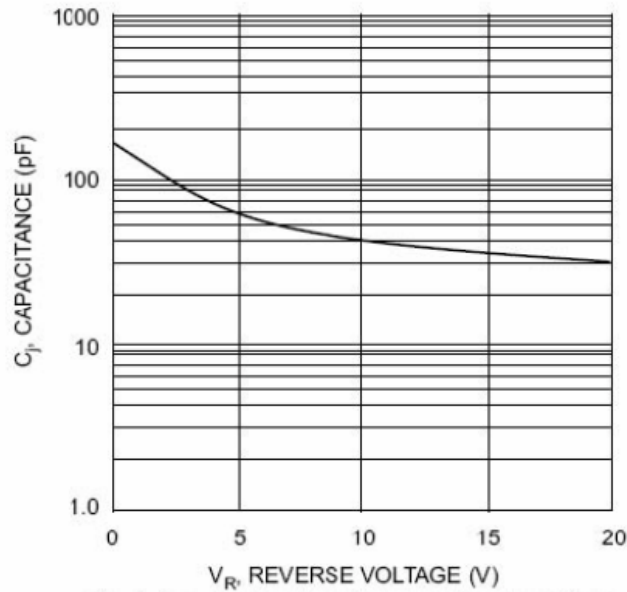


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage