

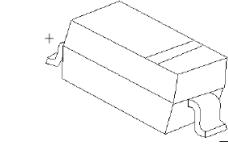


SOD-323 Plastic-Encapsulate Diodes

B0520WS/B0530WS/B0540WS

SCHOTTKY BARRIER DIODE

SOD-323



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 @Ta=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	$R_{\theta JA}$		500		°C/W
Junction temperature	T_j		125		°C
Storage temperature	T_{STG}		-55~+150		°C
Voltage rate of change	dv/dt		1000		V/ μ s

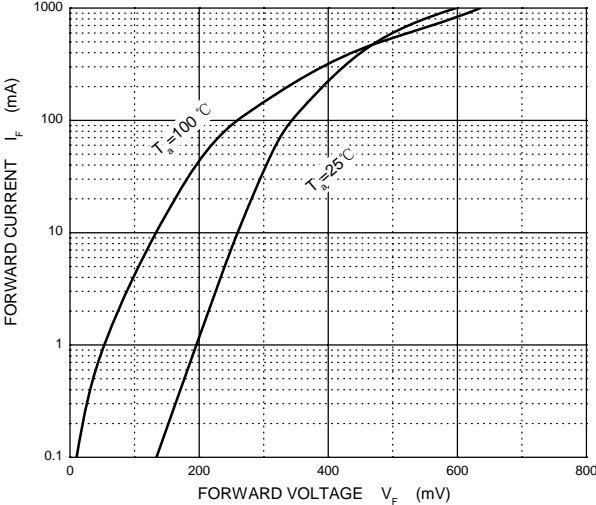
Electrical Characteristics @Ta=25°C

Parameter	Symbol	B0520WS	B0530WS	B0540WS	Unit	Conditions
Minimum reverse b-breakdown voltage	$V_{(BR)}$	20	--	--	V	$I_R=250\mu A$
		--	30	--		$I_R=500\mu A$
		--	--	40		$I_R=20\mu A$
Forward voltage	V_{F1}	0.33	0.36	--	V	$I_F=0.1A$
	V_{F2}	0.39	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	$V_R=0, f=1MHz$

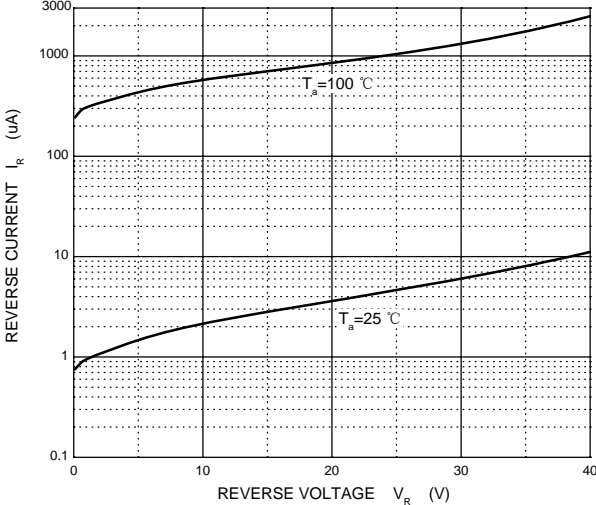
Typical Characteristics

B0540WS

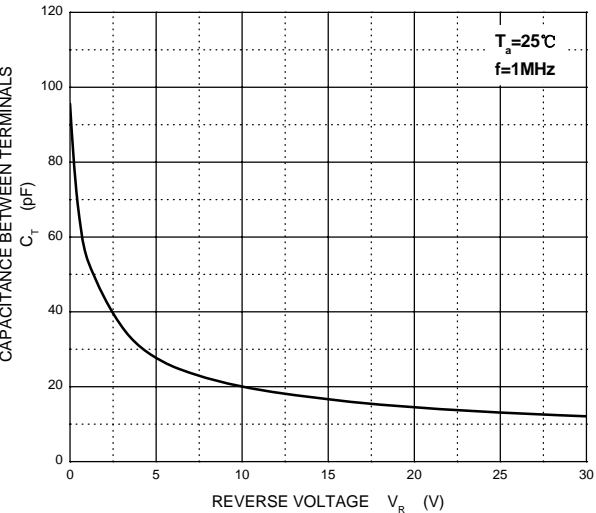
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

