

SCHOTTKY BARRIER DIODE

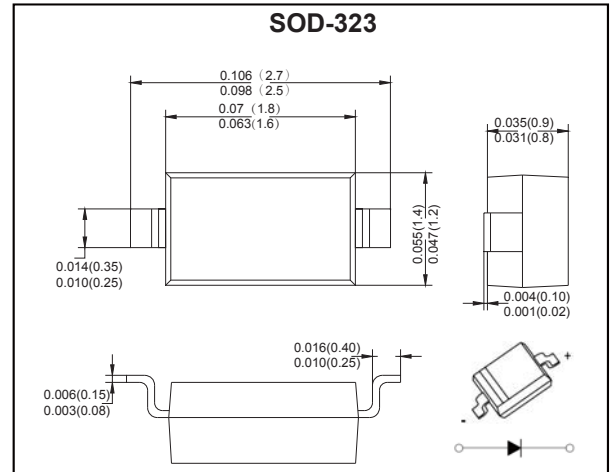
VOLTAGE RANGE: 20-40V PEAK PULSE POWER:200mW

FEATURES

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

MECHANICAL DATA

- Case: SOD-323 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 C ambient temperature unless otherwise specified

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
Non-repetitive Peak Forward Surge Current @t=8.3ms	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/μs

Electrical Specification ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter Sy	mbol	B0520WS	B0530WS	B0540WS	Unit	Conditions
Minimum reverse breakdown voltage	$V_{(BR)}$	20	--	--	V	$I_R=250\mu\text{A}$
		--	30	--		$I_R=500\mu\text{A}$
		--	--	40		$I_R=20\mu\text{A}$
Forward voltage	V_{F1}	0.33	0.36	--	V	$I_F=0.1\text{A}$
	V_{F2}	0.39	0.45	0.510		$I_F=0.5\text{A}$
	V_{F3}	--	--	0.62		$I_F=1\text{A}$
Reverse current	I_{R1}	75	--	--	μA	$V_R=10\text{V}$
	I_{R2}	--	80	--		$V_R=15\text{V}$
Reverse current	I_{R3}	250	100	10	μA	$V_R=20\text{V}$
	I_{R4}	--	500	--		$V_R=30\text{V}$
	I_{R5}	--	--	20		$V_R=40\text{V}$
Capacitance between terminals	C_T	170	170	170	pF	$V_R=0, f=1\text{MHz}$

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

