

### Features

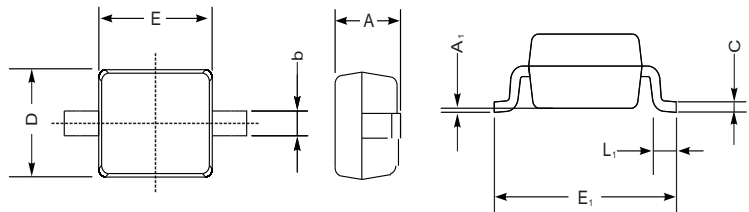
High Current Capability  
Low Forward Voltage Drop

### Mechanical Data

SOD-323 Small Outline Plastic Package  
Polarity: Color band denotes cathode end  
Epoxy UL: 94V-0  
Mounting Position: Any

**Marking:** B0520WS: SJ  
B0530WS: SE  
B0540WS: SL

SOD323



UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—
mil	max	43	5.9	55	70	108	16	16	8
	min	32	3.1	47	63	100	9.8	7.9	—

### Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	B0520WS	B0530WS	B0540WS	Unit
Maximum repetitive peak reverse voltage	VRRM	20	30	40	V
Maximum RMS voltage	VRMS	14	21	28	V
Maximum DC blocking voltage	VDC	20	30	40	V
Maximum average forward rectified current	IFM	0.5			A
Peak forward surge current 8.3 ms single half sine-wave	IFSM	5.5			A
Typical thermal resistance	RθJA	200			°C/W
Power Dissipation	PD	500			mW
Storage temperature range	TSTG	-50-+150			°C
Voltage rate of change	Dv/dt	1000			V/uS

# B0520-B0540WS

## Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified).

Parameters	Symbol	Test conditions	B0520WS	B0530WS	B0540WS	Unit
Maximum forward voltage	VF	IF = 0.1A	0.330	0.375	---	V
		IF = 0.5A	0.385	0.430	0.510	
		IF = 1.0A	---	---	0.620	
Maximum reverse breakdown voltage	VR	IR=250uA	20	---	---	V
		IR=200uA	---	30	---	
		IR=20.0uA	---	---	40	
Maximum reverse current	IR	VR=10V	75	---	---	uA
		VR=15V	---	20	---	
		VR=20V	250	---	10	
		VR=30V	---	130	---	
		VR=40V	---	---	20	
Capacitance between terminals	CT	VR = 0V, f = 1MHz			170	pF

## RATING AND CHARACTERISTIC CURVES (B0520-B0540WS)

