



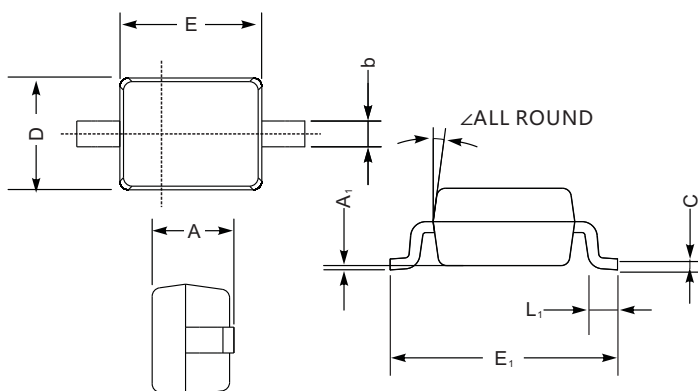
FEATURES

Low Forward Voltage Drop
Very Small SMD Package

APPLICATIONS

Low Voltage Rectification
High Efficiency DC/DC Conversion
Switch Mode Power Supply
Inverse Polarity Protection
Low Power Consumption Applications

SOD-323



SOD-323 mechanical data

UNIT		A	C	D	E	E ₁	b	L ₁	A ₁	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	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 (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{RRM}	Peak Repetitive Reverse Voltage	20	V
V _{RWM}	Working Peak Reverse Voltage		
V _{R(RMS)}	RMS Reverse Voltage	14	V
I _F	Continuous Forward Current	2	A
I _{FSM}	Non-repetitive Peak Forward Surge Current @ t=8.3ms	9	A
P _D	Power Dissipation	Note1	mW
		Note2	
R _{ΘJA}	Thermal Resistance from Junction to Ambient	Note1	°C/W
		Note2	
T _j	Operating Junction Temperature Range	-40 ~ +125	°C
T _{stg}	Storage Temperature Range	-55 ~ +150	°C

1:Device mounted on an FR4 PCB, single-sided copper, tin-plated and standard footprint.

2.Device mounted on an FR4 PCB with copper pad 10 x 10 mm.

B2020WS

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1\text{mA}$	20			V
Reverse current	I_R	$V_R=10\text{V}$			80	μA
		$V_R=20\text{V}$			100	
Forward voltage	V_F^*	$I_F=1\text{A}$			0.45	V
		$I_F=2\text{A}$			0.55	
Total capacitance	C_{tot}	$V_R=4\text{V}, f=1\text{MHz}$			120	pF

*Pulse test: $t_p \leq 300 \mu\text{s}$; $\delta \leq 0.02$.

RATING AND CHARACTERISTIC CURVES (B2020WS)

