TKB2020WS

SCHOTTKY BARRIER DIODE

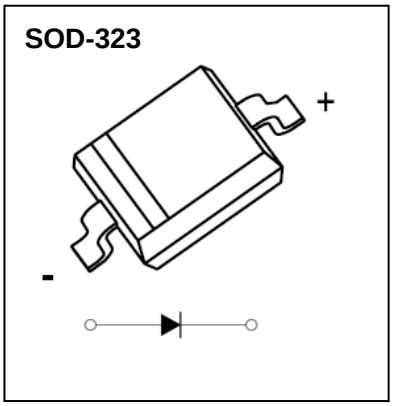
FEATURES

- 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



MARKING: SH

MAXIMUM RATINGS (T_a=25℃ 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	250	mW
		Note2	480	
$R_{\Theta JA}$	Thermal Resistance from Junction to Ambient	Note1	400	℃/W
		Note2	208	
T_j	Operating Junction Temperature Range		-40 ~ +125	℃
T_{stg}	Storage Temperature Range		-55 ~ +150	℃

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

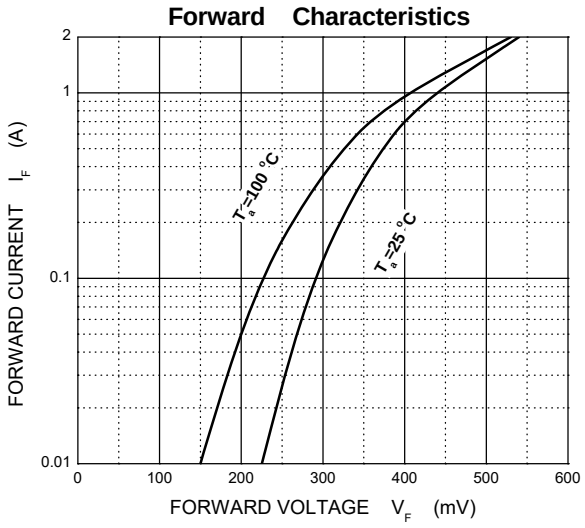
2.Device mounted on an FR4 PCB with copper pad 10 x 10 mm.

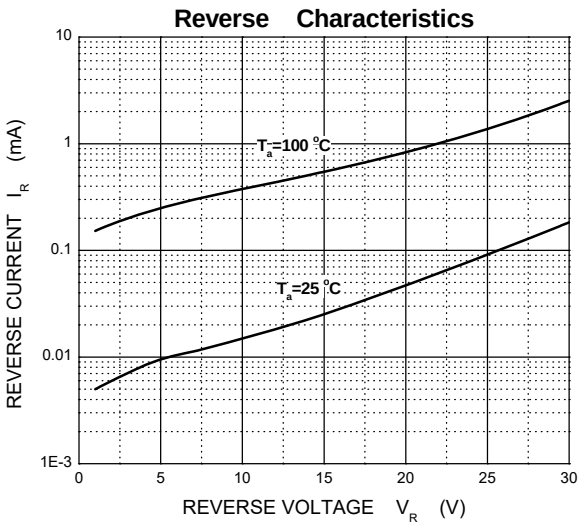
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

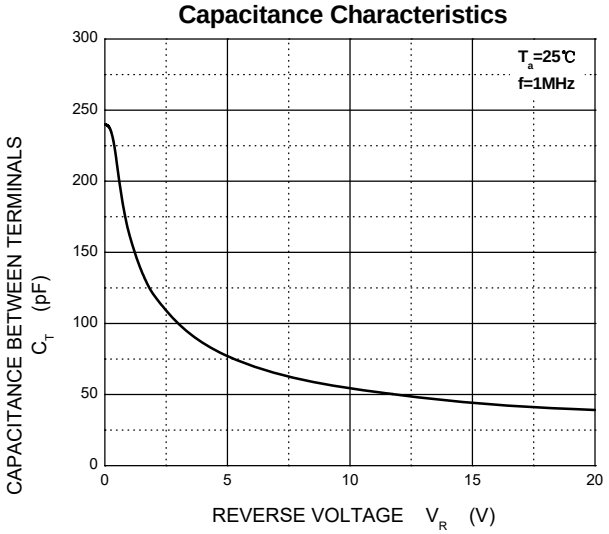
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R=1mA	20			V
Reverse current	I_R	V_R=10V			80	μA
		V_R=20V			100	
Forward voltage	V_F*	I_F=1A			0.45	V
		I_F=2A			0.55	
Total capacitance	C_{tot}	V_R=4V,f=1MHz			120	pF

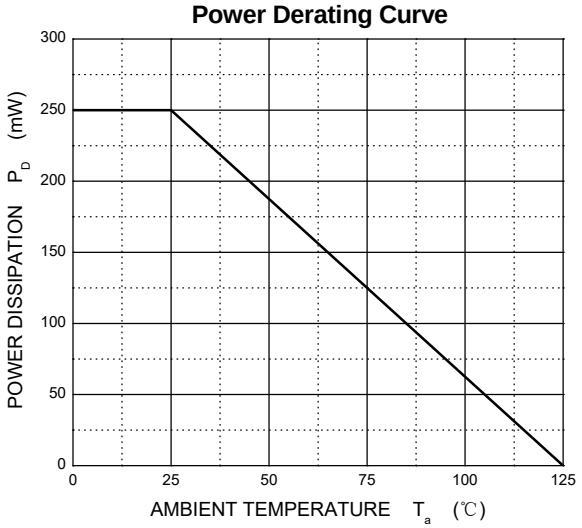
*Pulse test: tp ≤ 300 μs; δ ≤ 0.02.

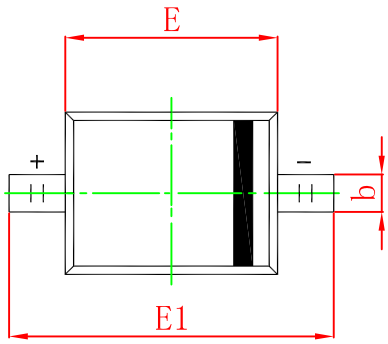
Typical Characteristics

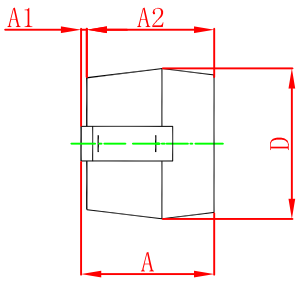


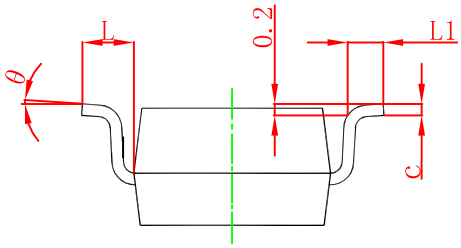






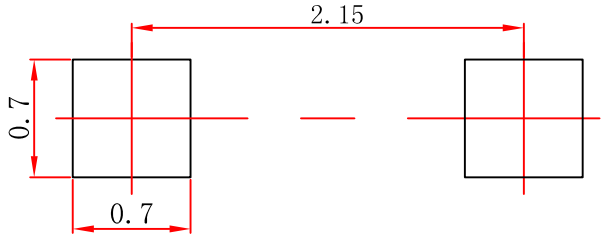






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

SOD-323 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.