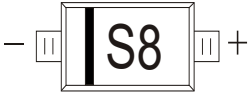
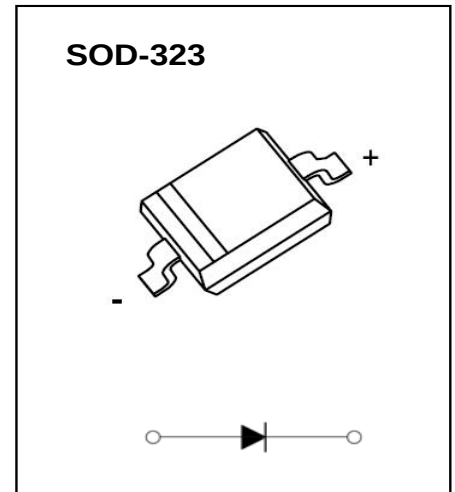


SOD-323 Plastic-Encapsulate Diodes**BAT42WS/BAT43WS****SCHOTTKY BARRIER DIODE****FEATURES**

- Fast Switching Time
- Low Forward Voltage Drop
- Surface Mount Package Ideally Suited for Automatic Insertion

MARKING

BAT42WS	BAT43WS
	

**MAXIMUM RATINGS** ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

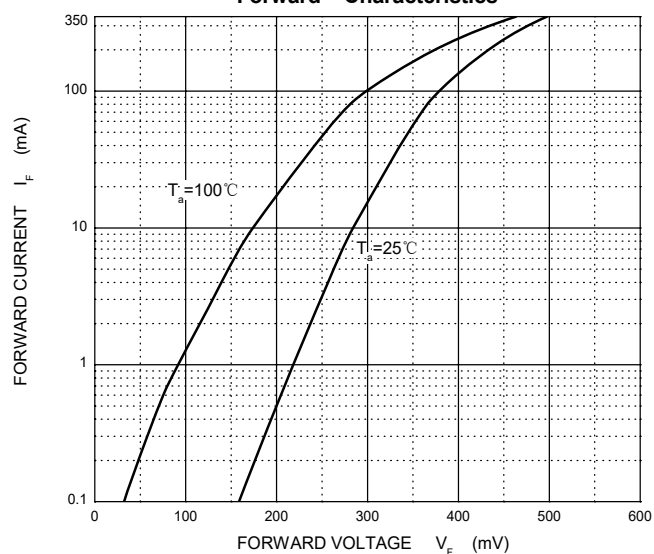
Parameter	Symbol	Limit	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current	I_{FM}	200	mA
Repetitive Peak Forward Current @ $t<1.0s$	I_{FRM}	500	mA
Non-repetitive Peak Forward Surge Current @ $t=8.3ms$	I_{FSM}	4.0	A
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	-40 ~ +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

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

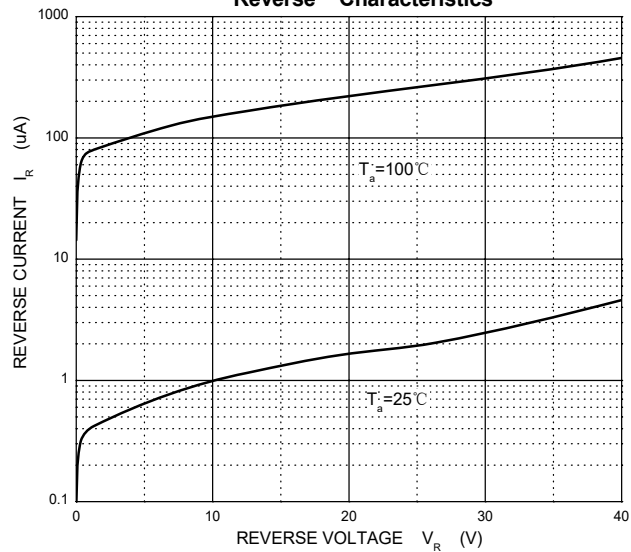
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	30			V	$I_R=10\mu\text{A}$
Forward voltage	Both Types			1.0	V	$I_F=200\text{mA}$
	BAT42WS			0.4	V	$I_F=10\text{mA}$
	BAT42WS			0.65	V	$I_F=50\text{mA}$
	BAT43WS	0.26		0.33	V	$I_F=2\text{mA}$
	BAT43WS			0.45	V	$I_F=15\text{mA}$
Reverse current	I_R			0.5	μA	$V_R=25\text{V}$
Capacitance between terminals	C_T			10	pF	$V_R=1.0\text{V}, f=1.0\text{MHz}$
Reverse recovery time	t_{rr}			5	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R, R_L=100\Omega$

Typical Characteristics

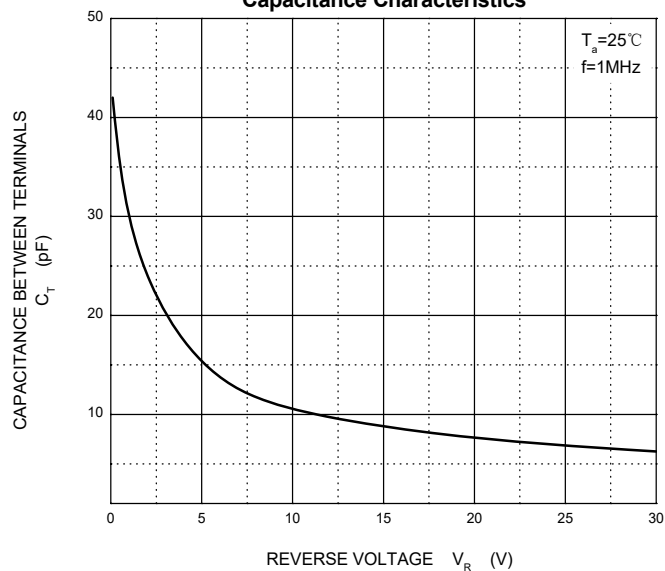
Forward Characteristics



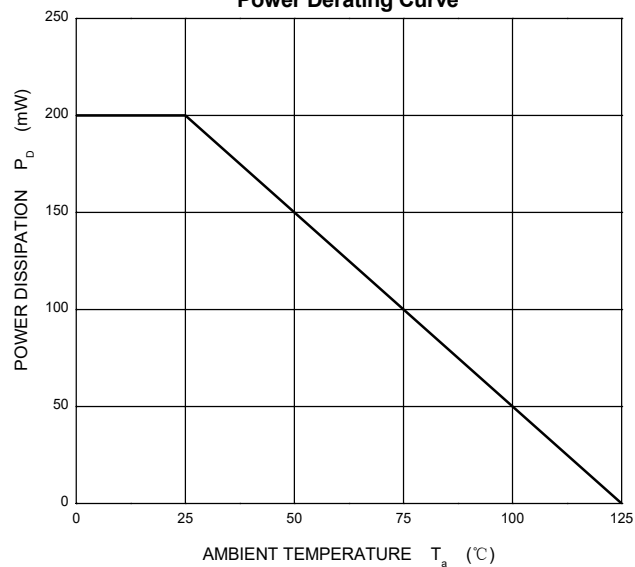
Reverse Characteristics



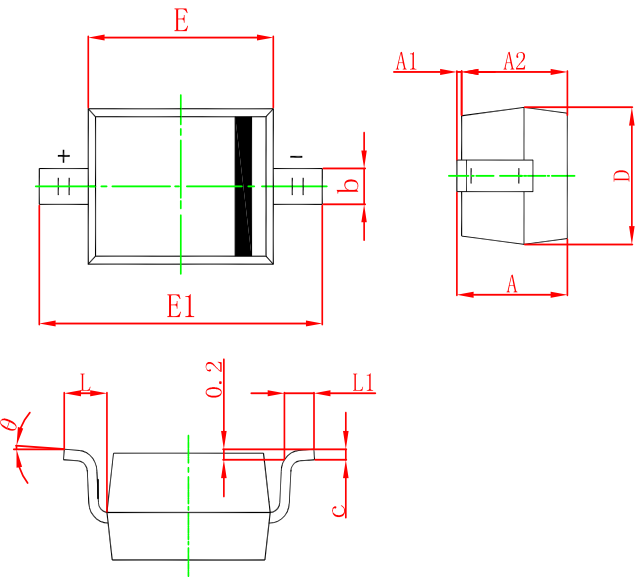
Capacitance Characteristics



Power Derating Curve

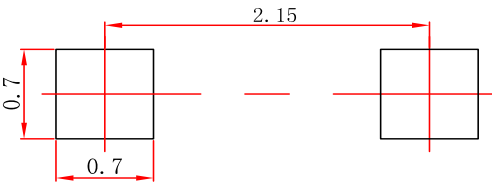


Package Outline Dimensions (SOD-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.100		0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
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	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

Suggested Pad Layout (SOD-323)



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