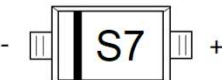
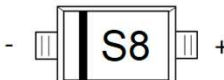


Features

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

BAT42WS	BAT43WS
	
Marking:S7	Marking:S8
	


Halogen-Free
Maximum Ratings(T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _R	Reverse Voltage	30	V
V _{RRM}	Peak Repetitive Reverse Voltage		
V _{RWM}	Working Peak Reverse Voltage		
V _{R(RMS)}	RMS Reverse Voltage	21	V
I _{FM}	Forward Continuous Current	200	mA
I _{FRM}	Repetitive peak forward current (Note 1) @ t _p < 1.0s, Duty Cycle < 50	500	mA
I _{FSM}	Non-repetitive Peak Forward Surge Current@t= 8.3ms	4.0	A
P _D	Power Dissipation	200	mW
R _{ΘJA}	Thermal Resistance from Junction to Ambient	500	°C/W
T _J	Operating Junction Temperature Range	-40~+125	°C
T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise specified)

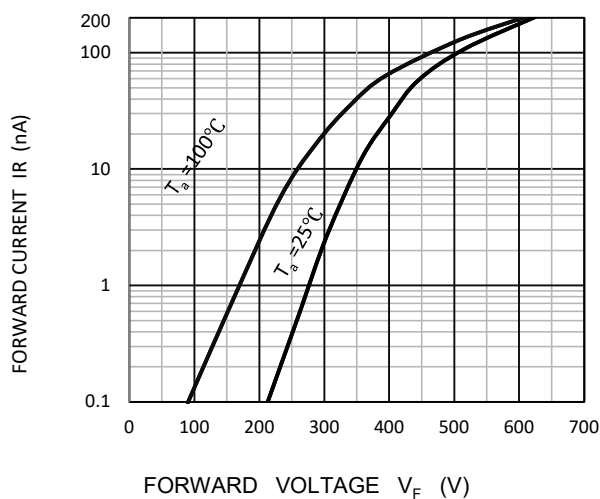
Symbol	Parameter	Condition	Min	Typ	Max	Unit
V _(BR)	Reverse voltage	I _R =10μA	30	--	--	V
I _R	Reverse voltage leakage current	V _R =25V	--	--	0.5	μA
V _F	Forward voltage	Both Types	--	--	1.0	V
V _F		BAT42WS	--	--	0.4	
V _F		BAT42WS	--	--	0.65	
V _F		BAT43WS	0.26	--	0.33	
V _F		BAT43WS	--	--	0.45	
C _{tot}	Total capacitance	V _R =1.0V, f=1.0MHz	--	--	10	pF
t _{rr}	Reverse recovery time	I _F = I _R =10mA, I _{rr} =0.1X I _R , R _L =100Ω	--	--	5	ns

Ordering Information (Example)

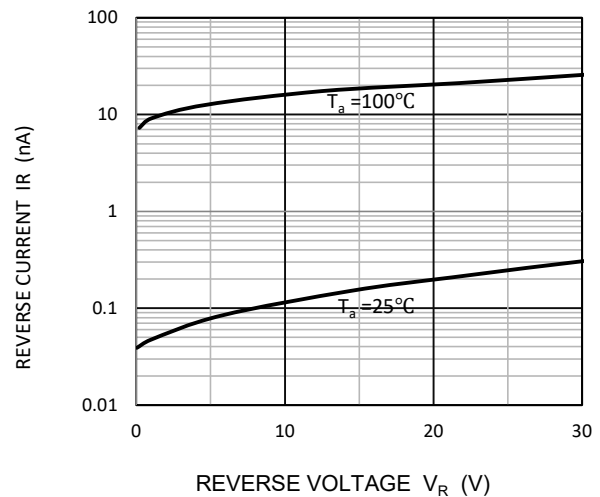
Type	Package	Marking	Minimum	Inner Box	Outer	Delivery
BAT42WS	SOD-323	S7	3,000	45,000	180,000	7"reel
BAT43WS	SOD-323	S8	3,000	45,000	180,000	7"reel

Typical Operating Characteristics

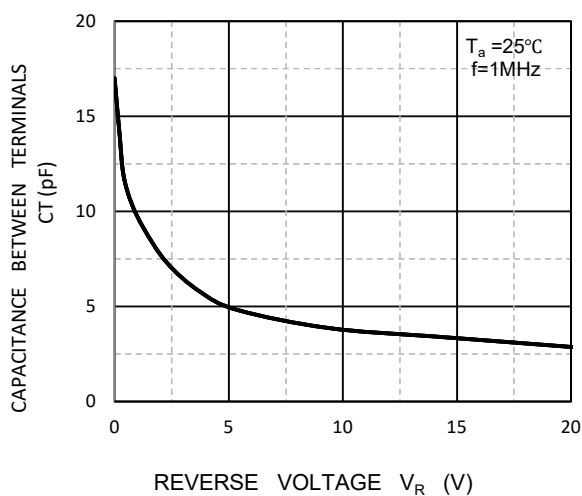
Forward Characteristics



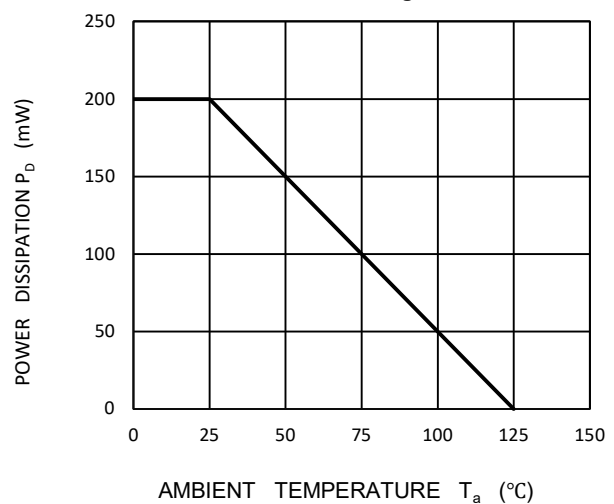
Reverse Characteristics



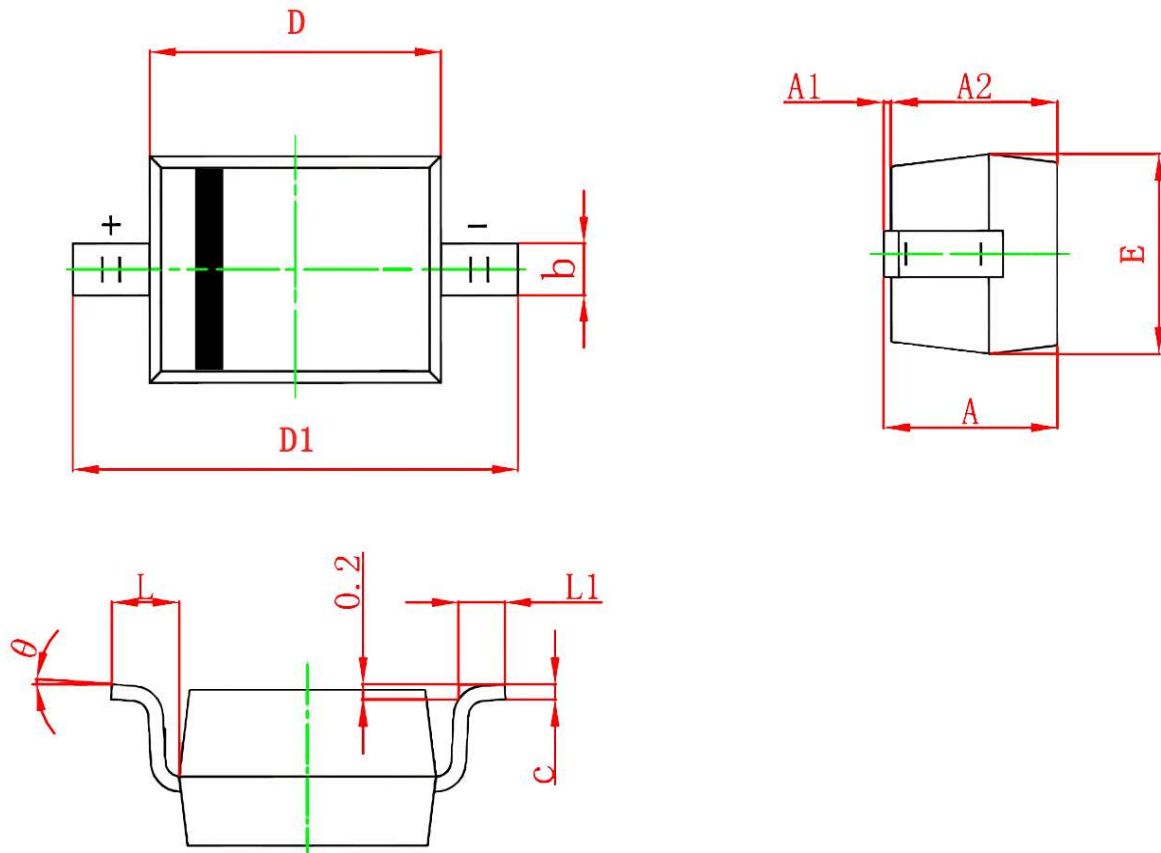
Capacitance Characteristics



Power Derating Curve



SOD-323 Package information



Symbol	Dimensions in Millimeters(mm)		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	1.600	1.800	0.063	0.071
D1	2.500	2.750	0.098	0.108
E	1.200	1.400	0.047	0.055
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°