

SOD-323 Plastic-Encapsulate Schottky Barrier Diode

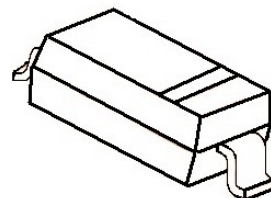
Features

- 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

SOD-323



Marking: BAT42WS: S7
BAT43WS: S8

Maximum Ratings & Thermal Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted.)

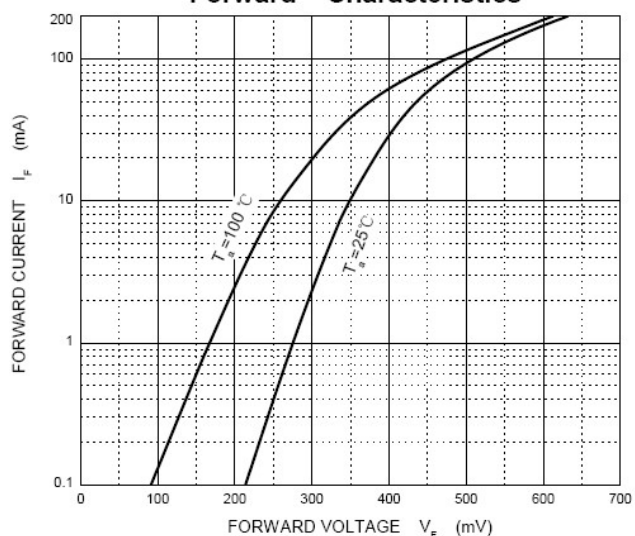
Parameters	Symbol	BAT42WS/BAT43WS	Unit
Maximum repetitive peak reverse voltage	VRRM	30	V
Maximum RMS voltage	VRMS	21	V
Maximum DC blocking voltage	VDC	30	V
Maximum average forward rectified current	IFM	200	mA
Repetitive Peak Forward Current @ $t<1.0\text{s}$	IFRM	500	mA
Peak forward surge current 8.3 ms single half sine-wave	IFSM	4.0	A
Typical thermal resistance	R θ JA	500	$^{\circ}\text{C}/\text{W}$
Power Dissipation	PD	200	mW
Junction Temperature	Tj	125	$^{\circ}\text{C}$
Storage temperature range	TSTG	-55-+150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted.)

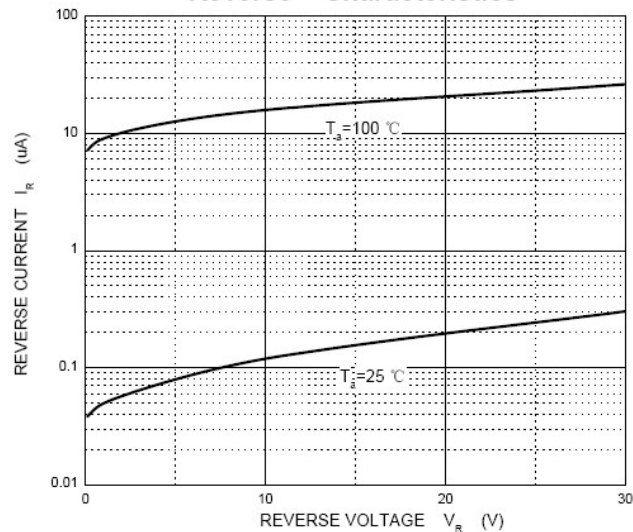
Parameters	Symbol	Test conditions	Min	Typ	Max	Unit
Maximum forward voltage	BAT42WS/BAT43WS		VF	IF = 200mA	1.0	V
	BAT42WS	IF = 10mA	VF		0.40	
			VF	IF = 50mA	0.65	
	BAT43WS	IF = 2.0mA	VF		0.33	
			VF	IF = 15mA	0.45	
Maximum reverse breakdown voltage	VR	IR=10uA	30			V
Maximum reverse current	IR	VR=25V			0.5	uA
Type junction capacitance	Cj	VR = 1.0V, f = 1MHz			10	pF
Reverse recovery time	trr	IF=IR=10mA Irr=0.1xIR, RL=100 Ω			5	nS



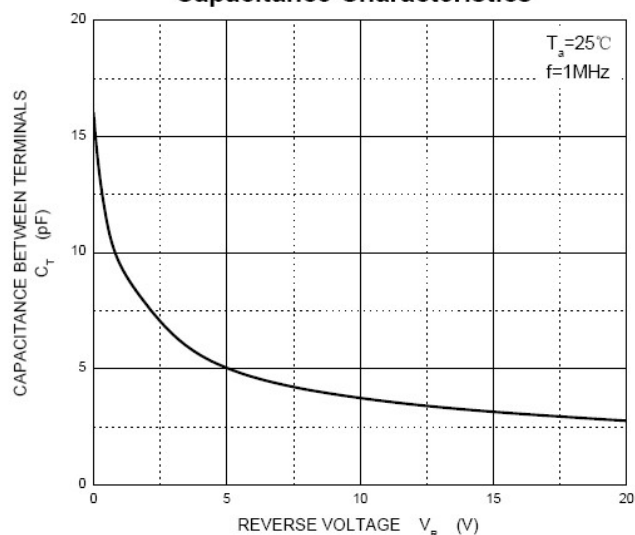
Forward Characteristics



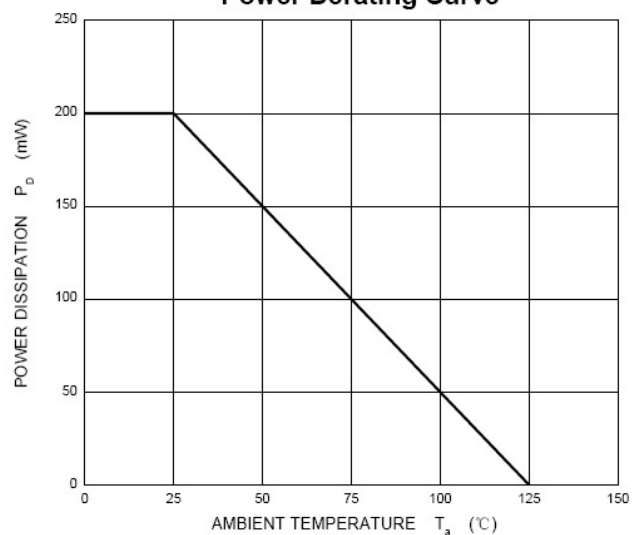
Reverse Characteristics



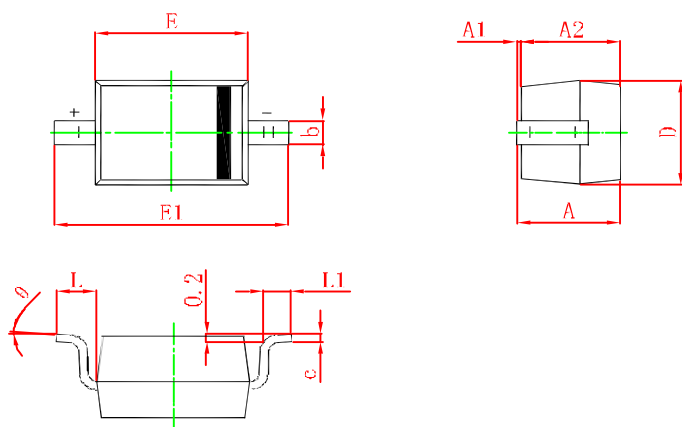
Capacitance Characteristics



Power Derating Curve



SOD-323 Package Outline



Symbol	Min.(mm)	Max.(mm)
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°