

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



Marking: SOD-323
 BAT42WS: S7
 BAT43WS: S8

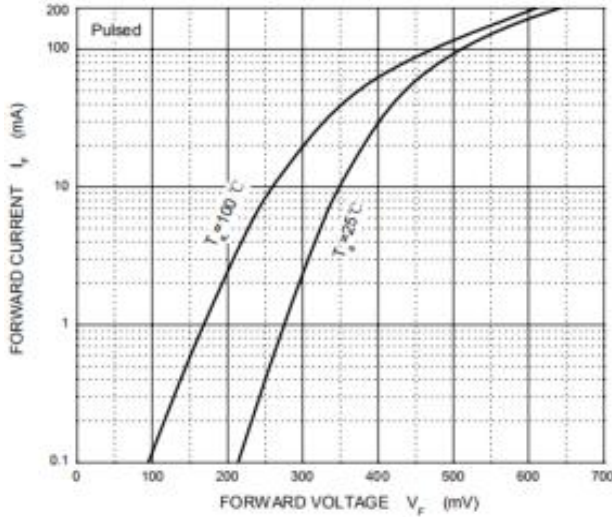
Maximum Ratings & Thermal Characteristics (T _A =25°C unless otherwise noted)			
Parameters	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	30	V
Maximum RMS voltage	V _{RMS}	21	V
Maximum DC blocking voltage	V _{DC}	30	V
Non-repetitive Peak Forward Current	I _{FM}	200	mA
Repetitive Peak Forward Current @t<1.0s	I _{FRM}	500	mA
Peak forward surge current 8.3 ms single half sine-wave	I _{FSM}	4.0	A
Power Dissipation	P _D	200	mW
Typical thermal resistance	R _{θJA}	500	°C/W
Storage temperature range	T _{STG}	-55-+150	°C
Junction temperature	T _J	125	°C

Electrical Characteristics (T _A =25°C unless otherwise noted)							
Parameter	Symbols	Test Condition	Limits			Unit	
			Min	Typ	Max		
Maximum reverse breakdown voltage	V _R	I _R =10uA	30			V	
Maximum reverse current	I _R	V _R =25V			0.5	uA	
Maximum forward voltage	BAT42WS BAT43WS BAT42WS BAT43WS	V _F	IF=200mA	0.26	1.0	V	
					IF=10mA		0.40
					IF=50mA		0.65
					IF=2.0mA		0.33
					IF=15mA		0.45
Type junction capacitance	C _j	V _R =1.0V, f=1MHZ			10	pF	
Reverse recovery time	T _{RR}	IF=I _R =10mA I _{rr} =0.1xI _R ,RL=100 Ω			5	nS	

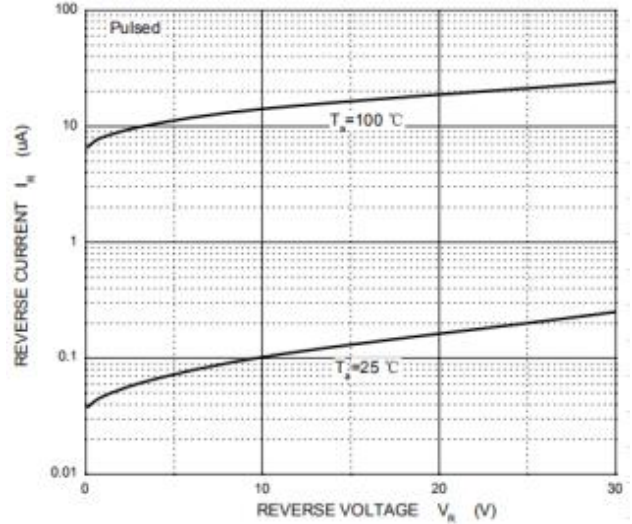
Ratings and Characteristics Curves

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

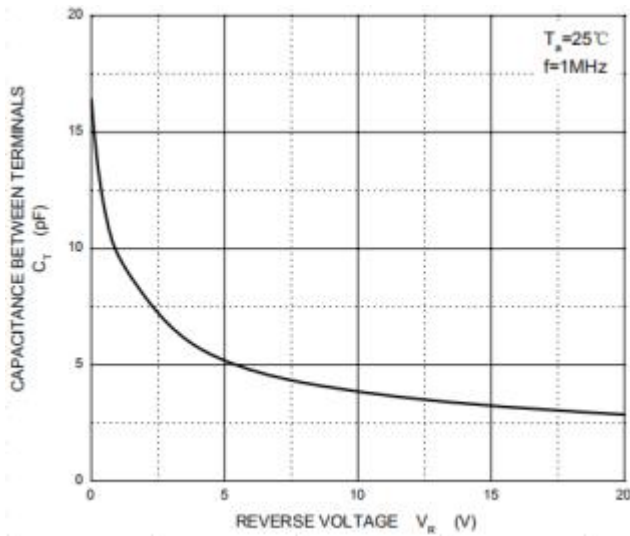
Forward Characteristics



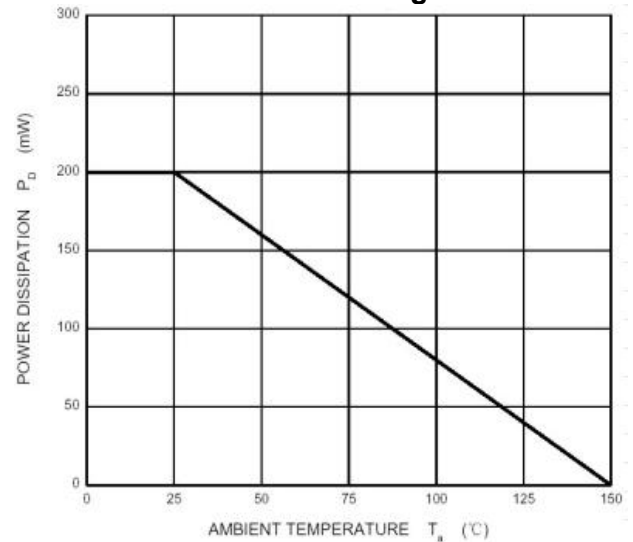
Reverse Characteristics



Capacitance Characteristics

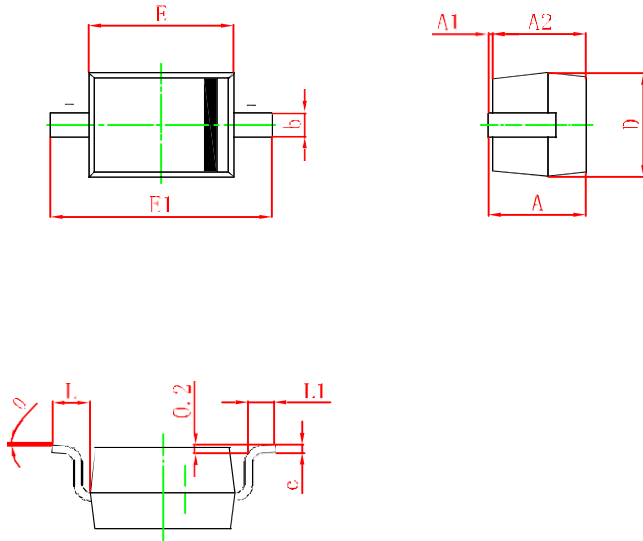


Power Derating Curve



Package Outline Dimensions

in inches (millimeters)



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°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2014.09.23	First issue

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