

# BAT42WS BAT43WS

## Features

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

## Mechanical Data

- Case: SOD-323, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band
- Weight: 0.004 grams ( approx.)
- Marking: BAT42WS S7  
BAT43WS S8

## Maximum Ratings @ 25°C Unless Otherwise Specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Working Peak Reverse Voltage	$V_{RWM}$	30	V
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current(Note1)	$I_{FM}$	200	mA
Average Rectified Output Current	$I_o$	100	mA
Repetitive Peak Forward Surge Current @ $t < 1.0s$	$I_{FRM}$	500	mA
Non-Rep. Peak Forward Surge Current @ $t < 10ms$	$I_{FSM}$	4	A
Power Dissipation	$P_d$	200	mW
Thermal Resistance(Note 1)	R	625	K/W
Operation/Storage Temp. Range	$T_j, T_{STG}$	-55 to +125	°C

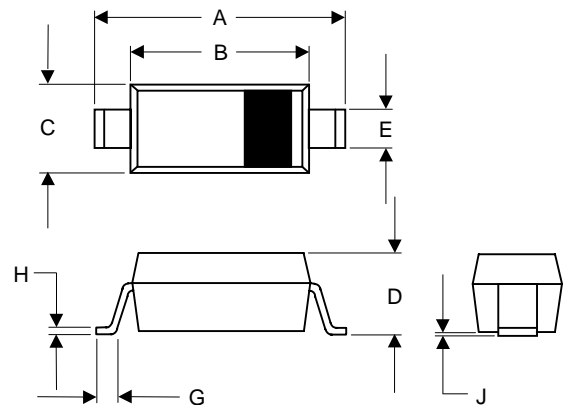
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Charateristic	Symbol	Min	Max	Unit	Test Cond.
Forward Voltage Drop					
All Types		----	1.0		$I_F=200mA$
BAT42WS	$V_{FM}$	----	0.40	V	$I_F=10mA$
BAT42WS		----	0.65		$I_F=50mA$
BAT43WS		0.26	0.33		$I_F=2.0mA$
BAT43WS		----	0.45		$I_F=15mA$
Maximum Peak Reverse Current	$I_{RM}$	----	500	nA	$V_R=25V$
			100	uA	$V_R=25V T_j=100^\circ C$
Junction Capacitance	$C_j$	----	10	pF	$V_R=1V, f=1.0MHz$
Reverse Recovery Time	$t_{rr}$	----	5	ns	$I_F=I_R=10mA$ $I_{rr}=0.1I_R$ $R_L=100\Omega$

- Note:** 1. Valid provided that terminals are kept at ambient temperature  
2.  $t_c \leq 300\mu s$ , duty cycle  $\leq 2\%$

## Schottky Barrier Switching Diode 200mW

### SOD323



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	-----	.006	-----	0.15	

### SUGGESTED SOLDER PAD LAYOUT

