



Micro Commercial Components

Micro Commercial Components  
 20736 Marilla Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# BAT42WS BAT43WS

## Schottky Barrier Diode 200mW

### Features

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

### Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Polarity: Indicated by Cathode Band
- Marking: BAT42WS S7  
BAT43WS S8
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

### Maximum Ratings @ 25°C Unless Otherwise Specified

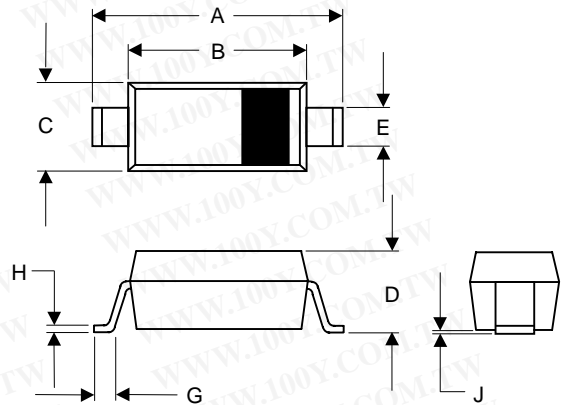
Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Working Peak Reverse Voltage	$V_{RWM}$	30	V
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current(Note1)	$I_{FM}$	200	mA
Average Rectified Output Current	$I_o$	100	mA
Repetitive Peak Forward 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(Note2) All Types	$V_{FM}$	----	1.0	V	$I_F=200mA$
BAT42WS		----	0.40		$I_F=10mA$
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	$I_{RM}$	----	500 100	nA uA	$V_R=25V$ $V_R=25V T_j=100^\circ C$
Junction Capacitance	$C_j$	----	10	pF	$V_R=1V, f=1.0MHz$
Reverse Recovery Time	$t_{rr}$	----	5	ns	$I_F=I_R=10mA$ $I_{rr}=0.1I_R$ $R_L=100OHMS$

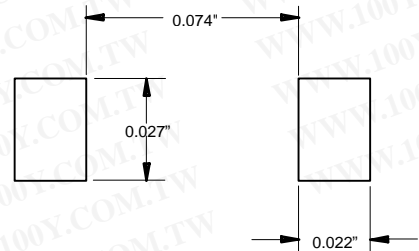
Notes: 1. Valid provided that terminals are kept at ambient temperature  
 2.  $t_c=300us$ , duty cycle $\leq 2\%$

### SOD323



DIM	INCHES		MM		NOTE
	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





Micro Commercial Components

勝特力材料 886-3-5753170  
勝特力电子(上海) 86-21-34970699  
勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

\*\*\*IMPORTANT NOTICE\*\*\*

**Micro Commercial Components Corp.** reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages.

\*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

\*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

[www.mccsemi.com](http://www.mccsemi.com)