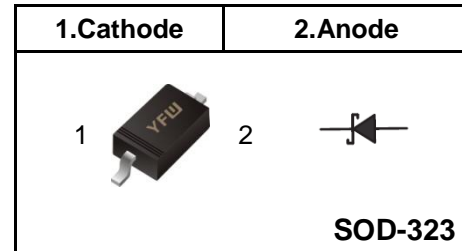


■ SCHOTTKY BARRIER DIODE

**FEATURES**

- Low Switching
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material - UL Recognition Flammability Classification 94V-0

**Pinning**



**Marking Code**

<b>BAT42WS</b>	<b>S7</b>
<b>BAT43WS</b>	<b>S8</b>

**Absolute Maximum Ratings** Ta = 25 °C

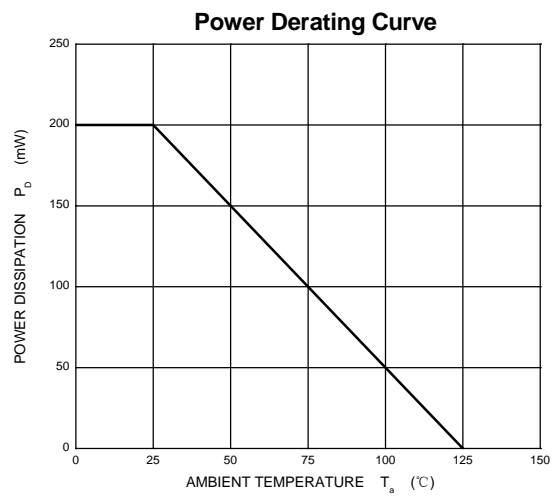
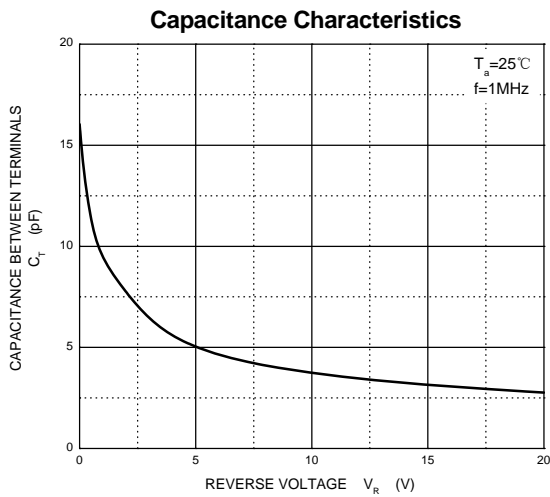
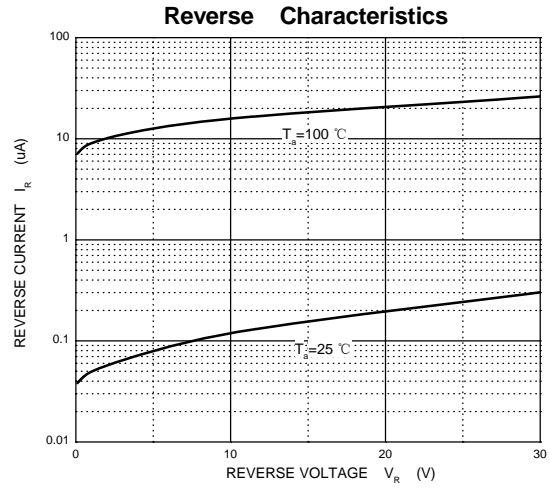
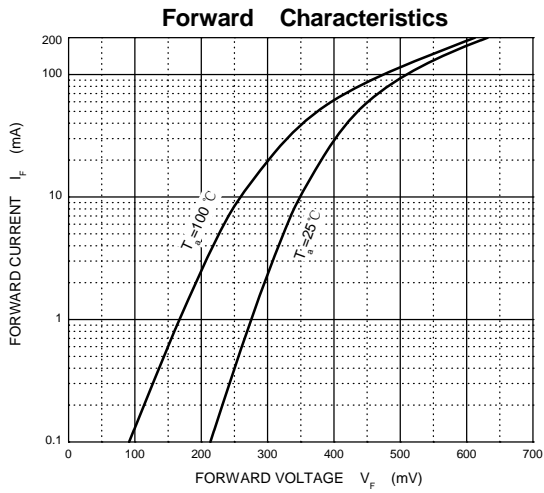
Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>		
Working Peak Reverse Voltage	V <sub>RWM</sub>	30	V
DC Blocking Voltage	V <sub>R</sub>		
Forward Continuous Current (Note 1)	I <sub>F</sub>	200	mA
Rectified Peak Forward Current (Note 1) @ T < 1.0s	I <sub>FSM</sub>	500	mA
Non-Repetitive Peak Forward Current @ t < 10ms	I <sub>FSM</sub>	4.0	A
Power Dissipation	P <sub>d</sub>	200	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	625	K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +125	°C

Note:

1. Valid provided that terminals are kept at ambient temperature.

**Electrical Characteristics** Ta = 25 °C

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	@ I <sub>RS</sub> = 100 μA	30			V
Forward Voltage	BAT42WS	@ I <sub>F</sub> = 1.0 mA			0.4	V
	BAT42WS	@ I <sub>F</sub> = 200 mA			1.0	
	BAT43WS	@ I <sub>F</sub> = 2.0 mA			0.33	
	BAT43WS	@ I <sub>F</sub> = 200 mA			1.0	
Reverse Leakage Current	I <sub>R</sub>	@ V <sub>R</sub> = 25 V			0.5	μA
Junction Capacitance	C <sub>j</sub>	V <sub>R</sub> = 1.0 V, f = 1.0 MHz			10	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> = I <sub>R</sub> = 10 mA I <sub>RR</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100 Ω			5.0	nS



**Ordering information**

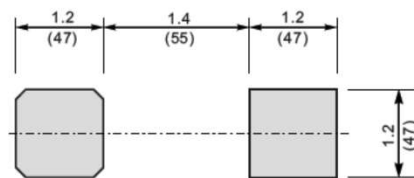
Package	Packing Description	Packing Quantity
SOD-323	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

**Package Dimensions**

**SOD-323**

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
C	0.08	0.15	3.1	5.9
D	1.2	1.4	47	55
E	1.4	1.8	63	70
E1	2.55	2.75	100	108
b	0.25	0.4	9.8	16
L1	0.2	0.45	7.9	16
A1	-	0.2	-	8
∠	9°			

**The recommended mounting pad size**



Unit:  $\frac{\text{mm}}{\text{mil}}$

## Disclaimer

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