



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

BAT42WS, BAT43WS

SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

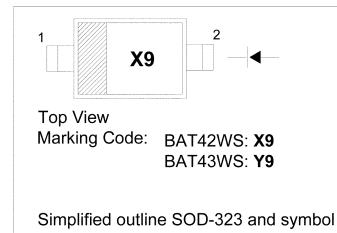
- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Surface Mount Package

Mechanical Data:

- Case: SOD-323, Molded Plastic.
- Moisture Sensitivity : Level 1per J-STD-020A
- Leads: Solderable per MIL-STD-202, Method 208

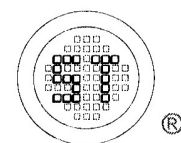
PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings (Ta = 25°C)

	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
DC Blocking Voltage	V_R	30	V
Average Rectified Output Current	I_O	100	mA
Forward Continuous Current	I_{FM}	200	mA
Repetitive Peak Forward Current @ t<1.0s	I_{FRM}	500	mA
Non-repetitive Peak Forward Surge Current @ t < 10 ms	I_{FSM}	4.0	A
Power Dissipation	P_{tot}	200	mW
Thermal Resistance, Junction to Ambient	R_{0JA}	625	°C/W
Junction Temperature	T_j	-55 to +125	°C
Storage Temperature Range	T_s	-55 to +125	°C



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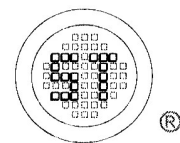
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Characteristics at T_A = 25°C

	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at I _R = 100μA	V _{(BR)R}	30	-	-	V
Peak Reverse Current at V _R =25V at V _R =25V, T _J =100°C	I _{RM}	-	-	500 100	nA μA
Forward Voltage Drop at I _F = 200mA at I _F = 10mA at I _F = 50mA at I _F = 2.0mA at I _F = 15mA	V _{FM}	-	-	1.0 0.4 0.65 0.33 0.45	V V V V V
					BAT42WS BAT42WS BAT43WS BAT43WS
Total Capacitance at V _R =1V f = 1MHz	C _T	-	-	10	pF
Reverse Recovery Time at I _F = I _R = 10mA, I _{RR} = 0.1* I _R , R _L = 100Ω	t _{rr}	-	-	5	ns



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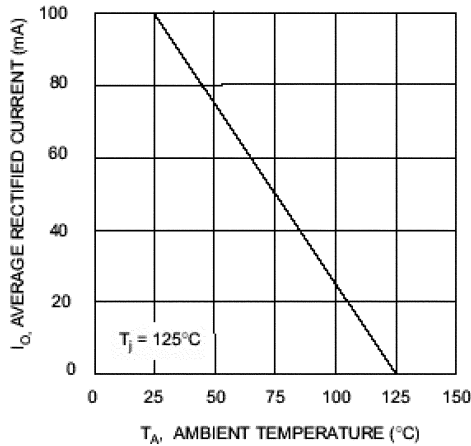


Fig. 1 Forward Current Derating Curve

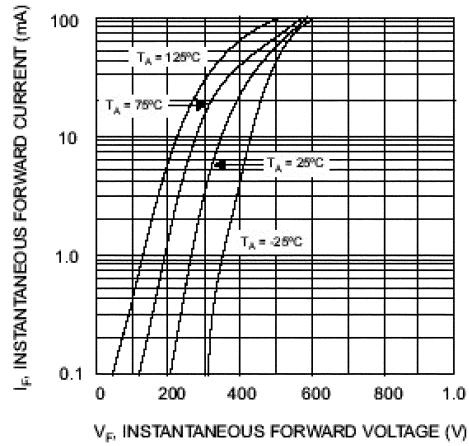


Fig. 2 Typical Forward Characteristics

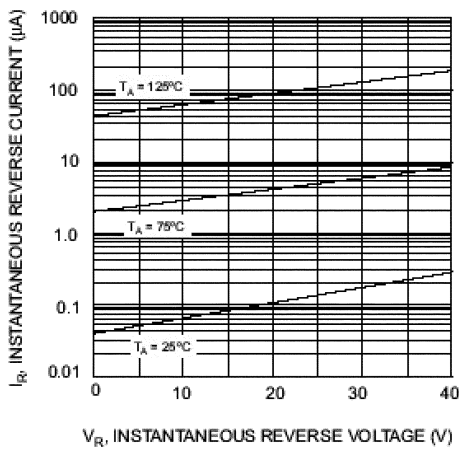


Fig. 3 Typical Reverse Characteristics

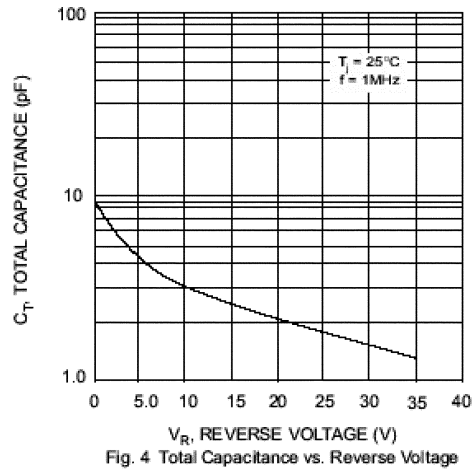
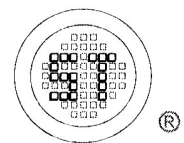


Fig. 4 Total Capacitance vs. Reverse Voltage



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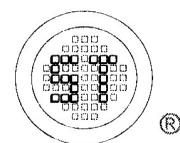
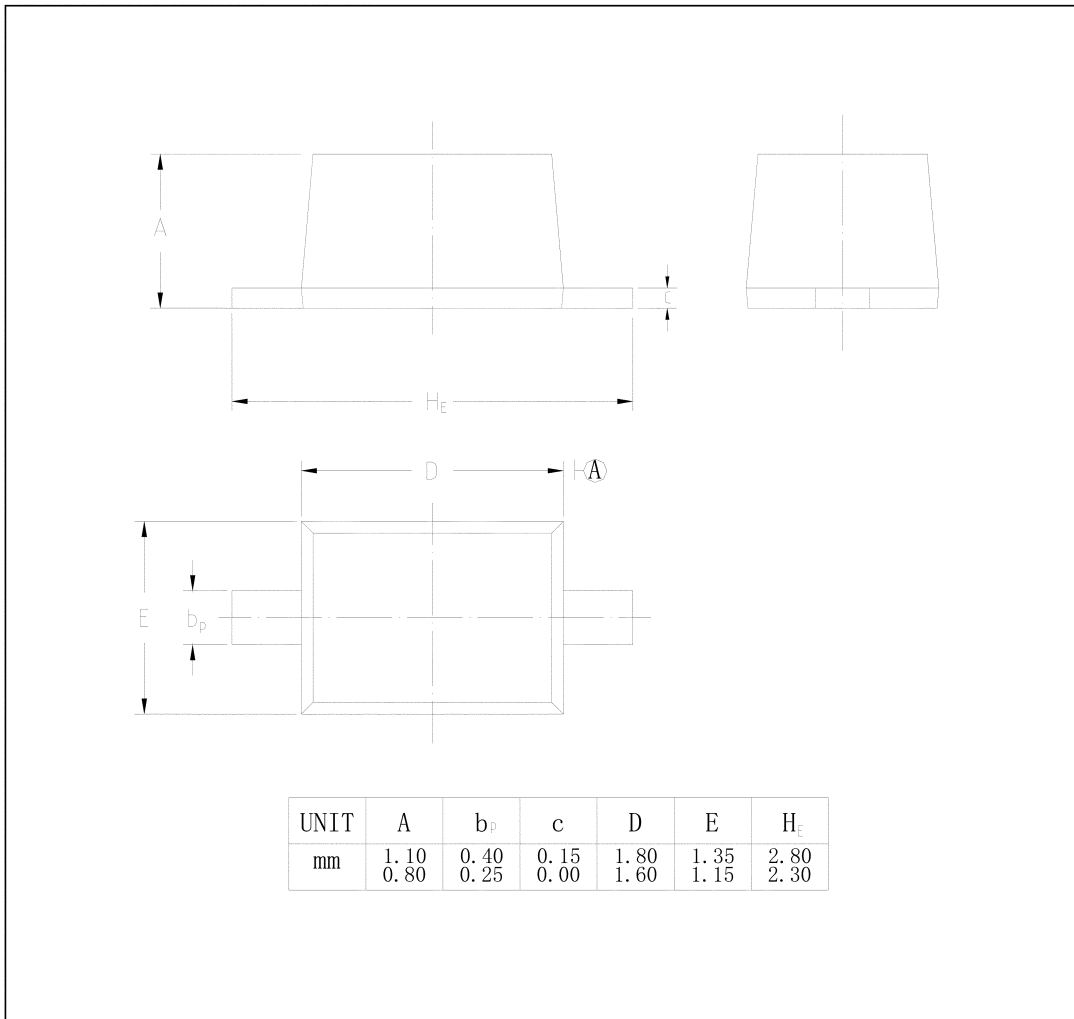
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PACKAGE OUTLINE

SOD-323



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