

BAT46W

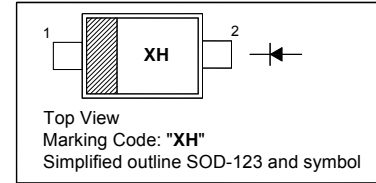
Surface Mount Schottky Barrier Diode

Features

- High breakdown voltage
- Low forward voltage
- Surface mount device

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

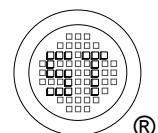


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

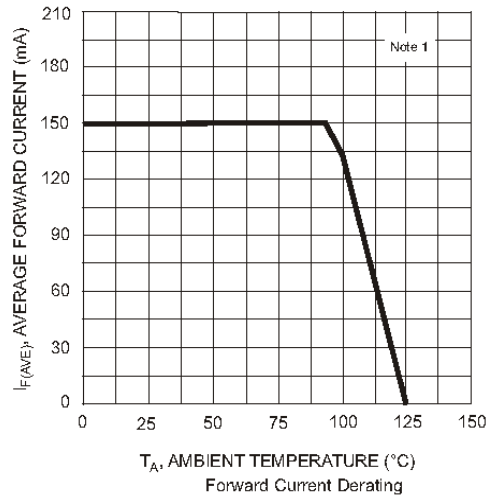
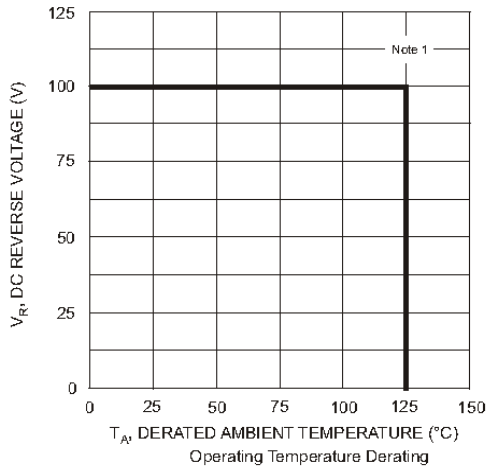
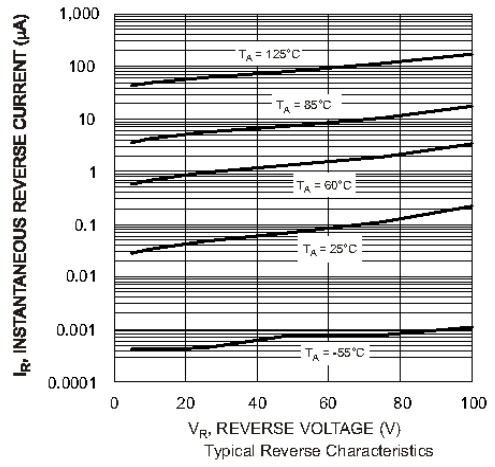
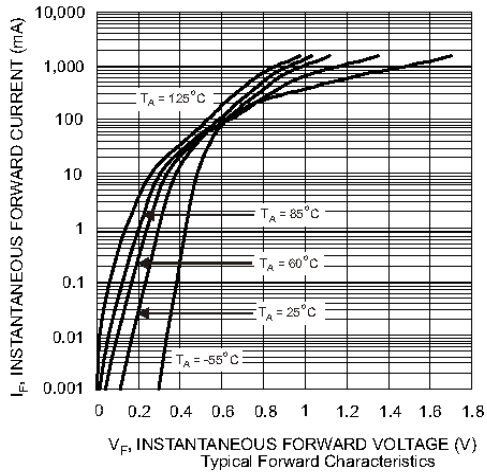
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Continuous Forward Current	I_F	150	mA
Repetitive Peak Forward Current (at $t_p < 1$ s)	I_{FRM}	350	mA
Surge Forward Current (at $t_p < 10$ ms)	I_{FSM}	750	mA
Power Dissipation	P_{tot}	200	mW
Thermal Resistance Junction Ambient	$R_{\theta JA}$	420	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_j	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

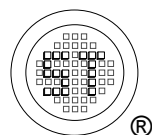
Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	100	-	-	V
Forward Voltage at $I_F = 0.1$ mA at $I_F = 10$ mA at $I_F = 250$ mA	V_F	-	-	0.25 0.45 1	V
Reverse Current at $V_R = 1.5$ V at $V_R = 10$ V at $V_R = 50$ V at $V_R = 75$ V at $V_R = 1.5$ V, $T_j = 60^\circ\text{C}$ at $V_R = 10$ V, $T_j = 60^\circ\text{C}$ at $V_R = 50$ V, $T_j = 60^\circ\text{C}$ at $V_R = 75$ V, $T_j = 60^\circ\text{C}$	I_R	-	-	0.5 0.8 2 5 5 7.5 15 20	μA
Total Capacitance at $V_R = 0$ V, $f = 1$ MHz at $V_R = 1$ V, $f = 1$ MHz	C_T	-	11 6	40 35	pF



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Note 1: Part mounted on FR-4 board with recommended pad layout.

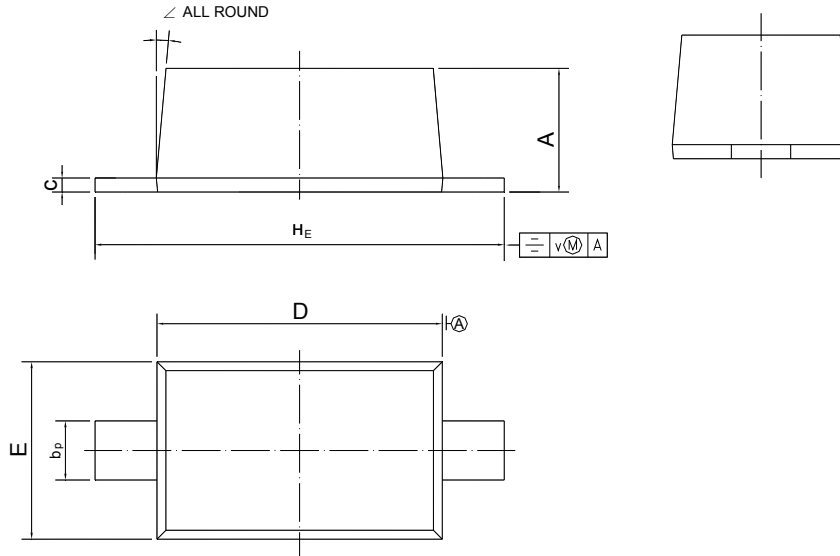


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PACKAGE OUTLINE

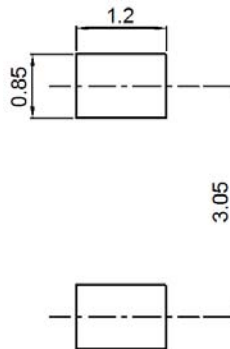
Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	bp	c	D	E	HE	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	(inch)	mm	(inch)	
SOD-123	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

