

# BAT46W

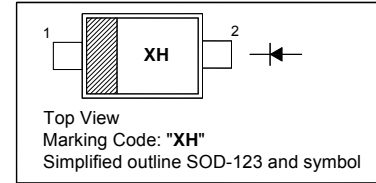
## Surface Mount Schottky Barrier Diode

### Features

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

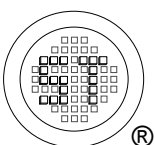


### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

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	$\mu\text{A}$
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

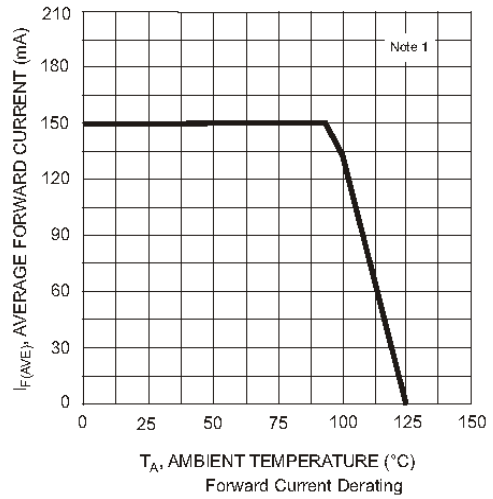
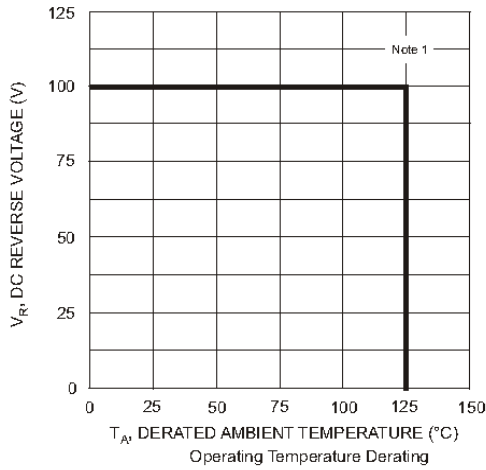
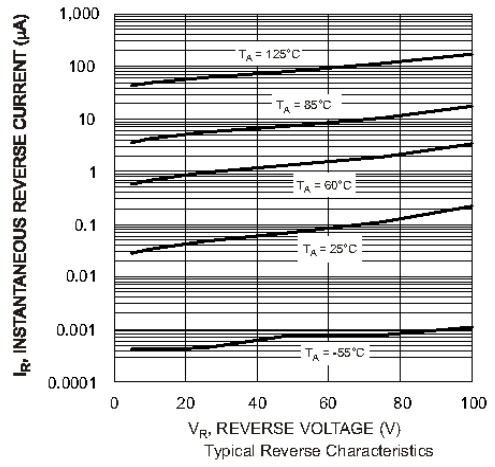
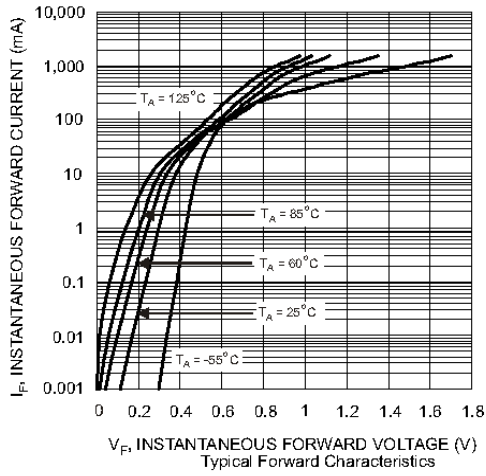


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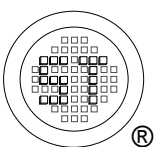


Dated: 31/03/2016 Rev: 01

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Note 1: Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.



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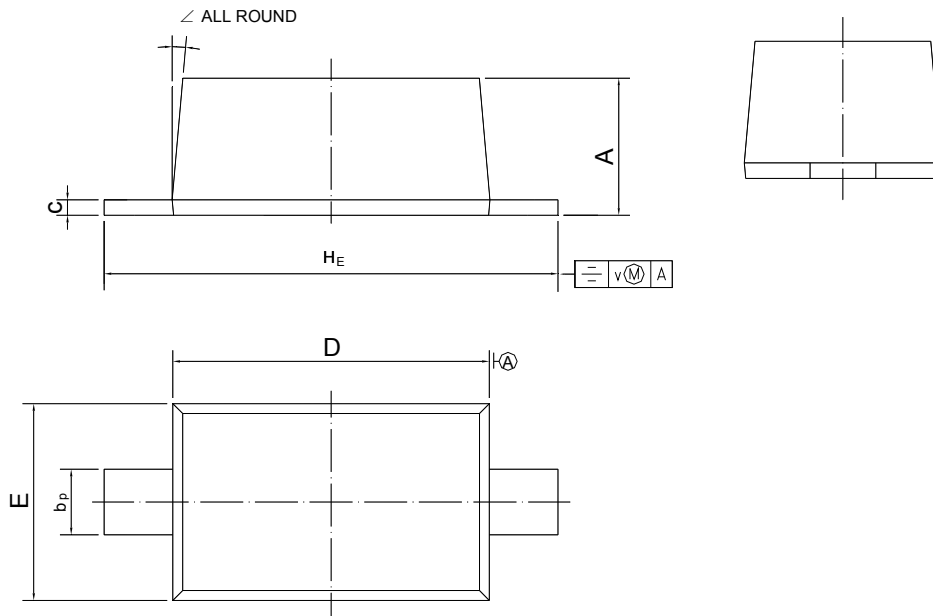
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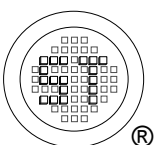
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b <sub>p</sub>	c	D	E	H <sub>E</sub>	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°



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