

# BAT46W

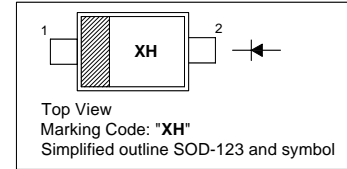
## SURFACE MOUNT SCHOTTKY BARRIER DIODE

### Features

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

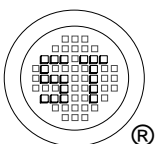


### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

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

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	100	-	-	V
Forward Voltage at $I_F = 0.1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 250\text{ mA}$	$V_F$	-	-	0.25 0.45 1	V
Reverse Current at $V_R = 1.5\text{ V}$ at $V_R = 10\text{ V}$ at $V_R = 50\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 1.5\text{ V}, T_j = 60\text{ }^\circ\text{C}$ at $V_R = 10\text{ V}, T_j = 60\text{ }^\circ\text{C}$ at $V_R = 50\text{ V}, T_j = 60\text{ }^\circ\text{C}$ at $V_R = 75\text{ V}, T_j = 60\text{ }^\circ\text{C}$	$I_R$	-	-	0.5 0.8 2 5 5 7.5 15 20	$\mu\text{A}$
Total Capacitance at $V_R = 0\text{ V}, f = 1\text{ MHz}$ at $V_R = 1\text{ V}, f = 1\text{ MHz}$	$C_T$	-	20 12	-	pF



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ISO/TS 16949 : 2002  
Certificate No. 05103



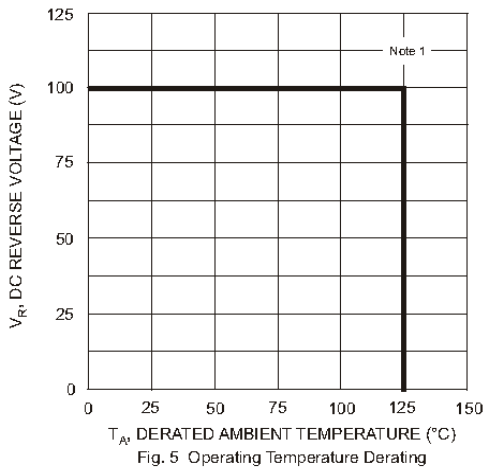
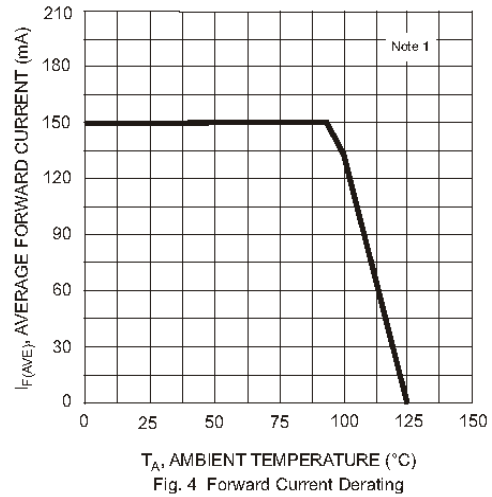
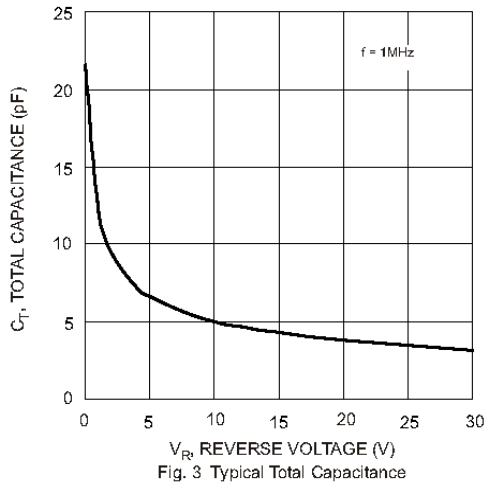
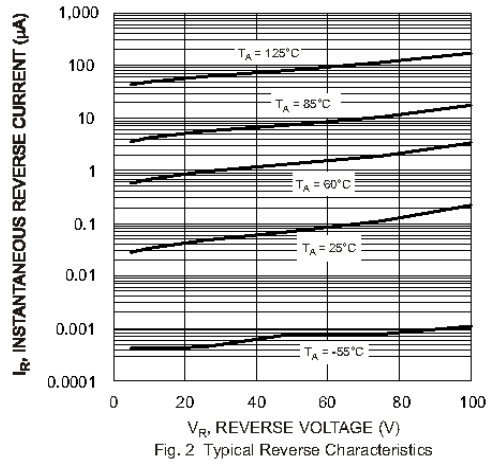
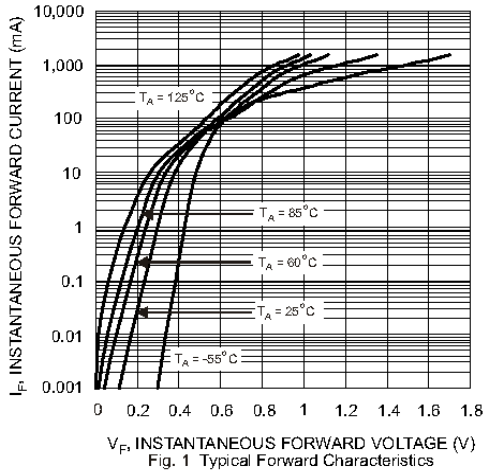
ISO 14001:2004  
Certificate No. 7116



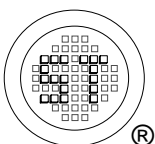
ISO 9001:2000  
Certificate No. 0506098

Dated : 06/07/2007

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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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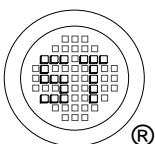
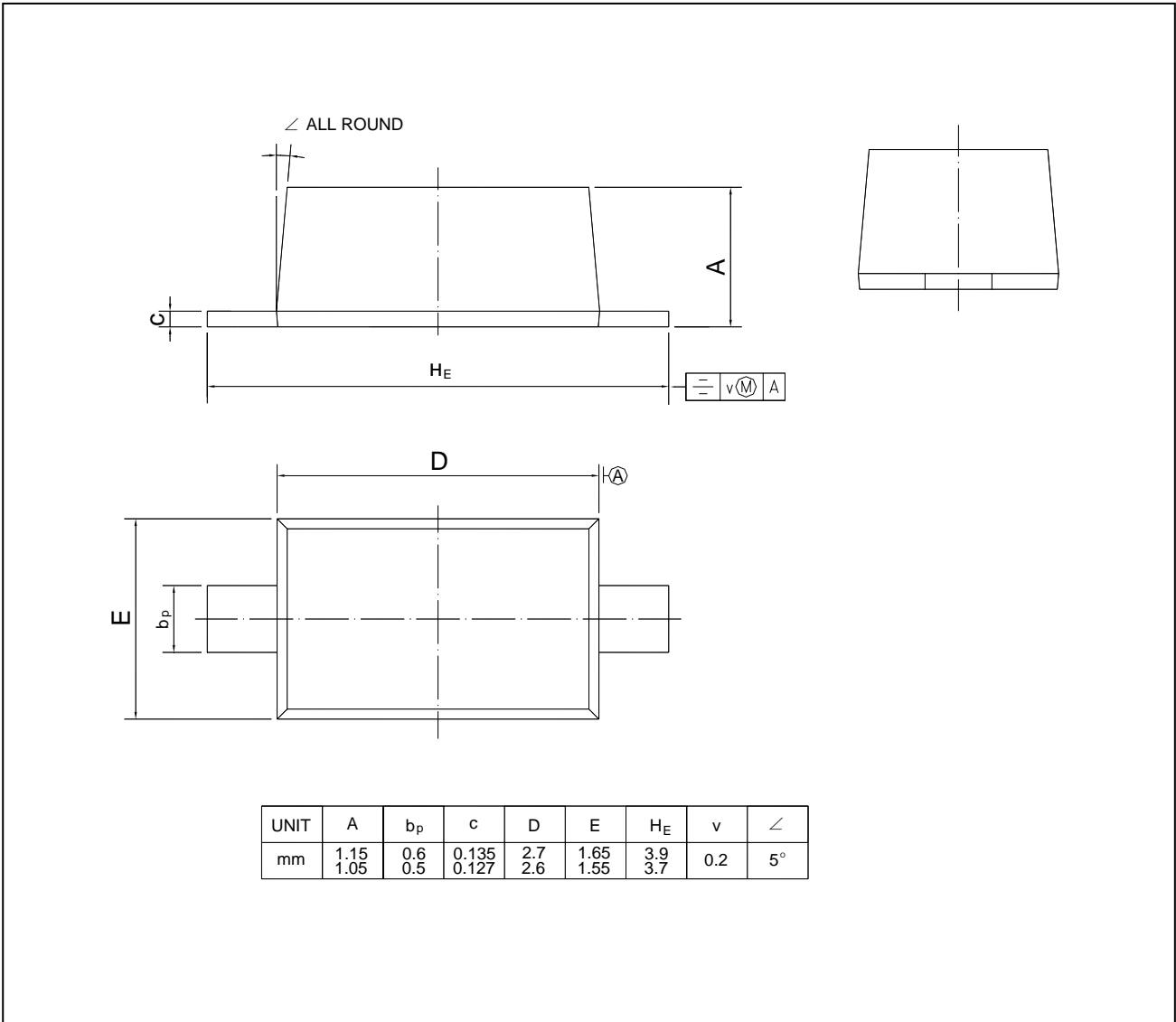
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## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



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