

To all our customers

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Renesas Technology Corp.  
Customer Support Dept.  
April 1, 2003

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Keep safety first in your circuit designs!

1. Renesas Technology Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage.

Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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# HSB88WA

Silicon Schottky Barrier Diode for High Speed Switching



ADE-208-965 (Z)

Rev.0  
Aug. 2000

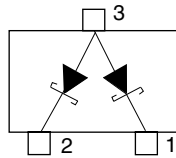
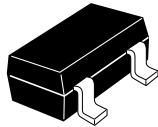
## Features

- Low reverse current, Low capacitance.
- CMPAK package is suitable for high density surface mounting and high speed assembly.

## Ordering Information

Type No.	Laser Mark	Package Code
HSB88WA	C7	CMPAK

## Pin Arrangement



(Top View)

- 1 Cathode
- 2 Cathode
- 3 Anode

## Absolute Maximum Ratings

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

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	10	V
Average rectified current	$I_o^*$	15	mA
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

Note: Per one device.

## Electrical Characteristics

( $T_a = 25^\circ\text{C}$ ) \*<sup>1</sup>

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_{F1}$	0.350	—	0.420	V	$I_F = 1\text{ mA}$
	$V_{F2}$	0.500	—	0.580		$I_F = 10\text{ mA}$
Reverse current	$I_{R1}$	—	—	0.2	$\mu\text{A}$	$V_R = 2\text{ V}$
	$I_{R2}$	—	—	10		$V_R = 10\text{ V}$
Capacitance	C	—	—	0.80	pF	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$
Capacitance deviation	$\Delta C$	—	—	0.10	pF	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$
Forward voltage deviation	$\Delta V_F$	—	—	10	mV	$I_F = 10\text{ mA}$
ESD-Capability * <sup>2</sup>	—	30	—	—	V	C = 200 pF, R = 0 $\Omega$ , Both forward and reverse direction 1 pulse.

Notes: 1. Per one device.

2. Failure criterion ;  $I_R > 0.4\text{ }\mu\text{A}$  at  $V_R = 2\text{ V}$

Main Characteristic

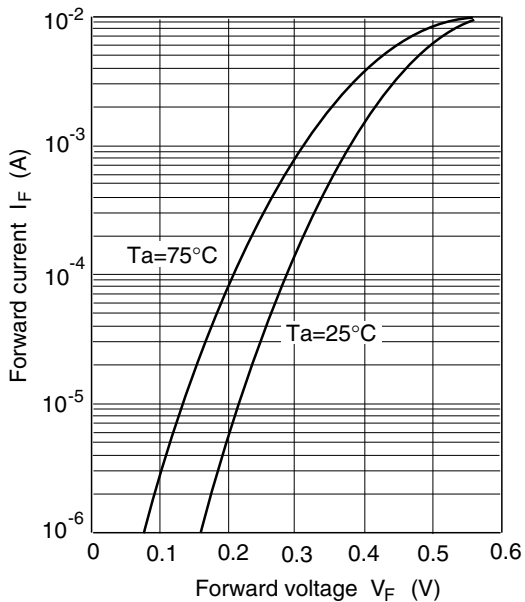


Fig.1 Forward current Vs. Forward voltage

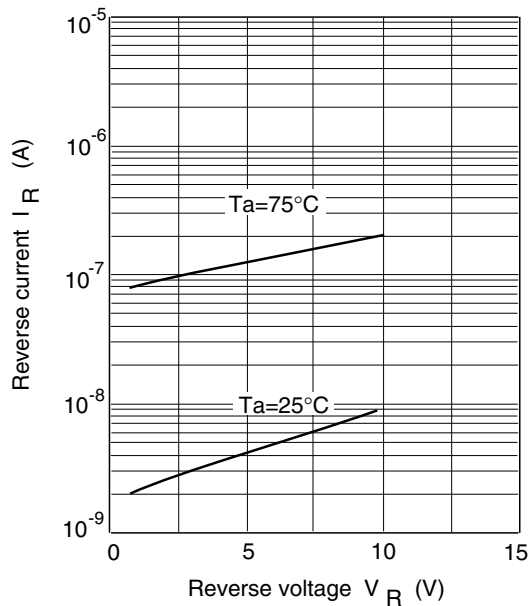


Fig.2 Reverse current Vs. Reverse voltage

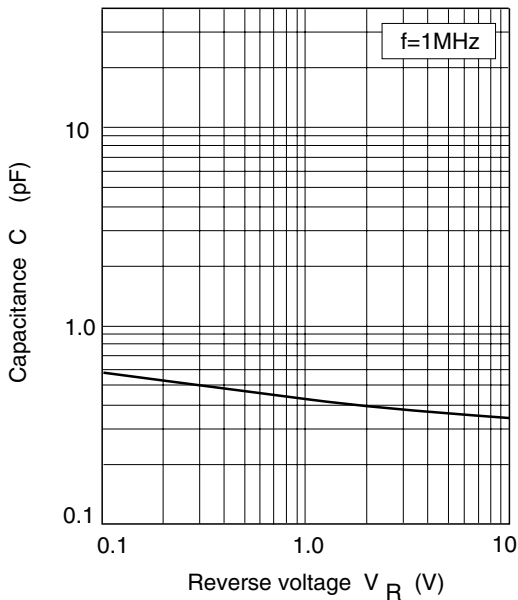
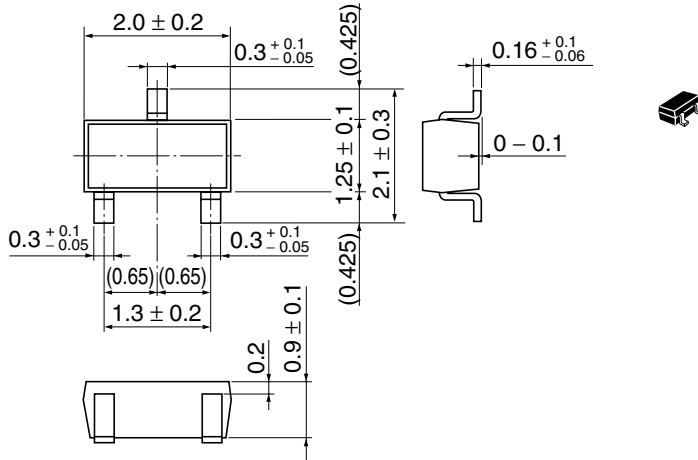


Fig.3 Capacitance Vs. Reverse voltage

## Package Dimensions

Unit: mm



Hitachi Code	CMPAK
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.006 g

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