

# HSB278S

Silicon Schottky Barrier Diode for High Speed Switching

# HITACHI

ADE-208-1383 (Z)

Rev.0

Mar. 2001

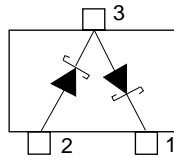
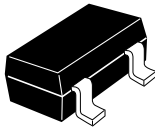
## Features

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

## Ordering Information

Type No.	Laser Mark	Package Code
HSB278S	S2	CMPAK

## Outline



(Top View)

- 1 Cathode 2
- 2 Anode 1
- 3 Cathode 1
- Anode 2

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}$	30	V
Reverse voltage	$V_R$	30	V
Non-Repetitive peak forward surge current	$I_{FSM}^{*1 *2}$	200	mA
Peak forward current	$I_{FM}^{*2}$	150	mA
Average rectified current	$I_O^{*2}$	30	mA
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

Notes: 1. 10 msec sine wave 1 pulse  
2. Per one device.

Electrical Characteristics (Ta = 25°C) \*1

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_{F1}$	—	—	0.30	V	$I_F = 1\text{ mA}$
	$V_{F2}$	—	—	0.95		$I_F = 30\text{ mA}$
Reverse current	$I_R$	—	—	700	nA	$V_R = 10\text{ V}$
Capacitance	C	—	—	1.50	pF	$V_R = 1\text{ V}$ , $f = 1\text{ MHz}$
ESD-Capability *1	—	100	—	—	V	C = 200 pF, $R_L = 0\text{ }\Omega$ , Both forward and reverse direction 1 pulse.

Notes: 1. Per one device.  
2. Failure criterion ;  $I_R > 1.4\text{ }\mu\text{A}$  at  $V_R = 10\text{ V}$

Main Characteristic

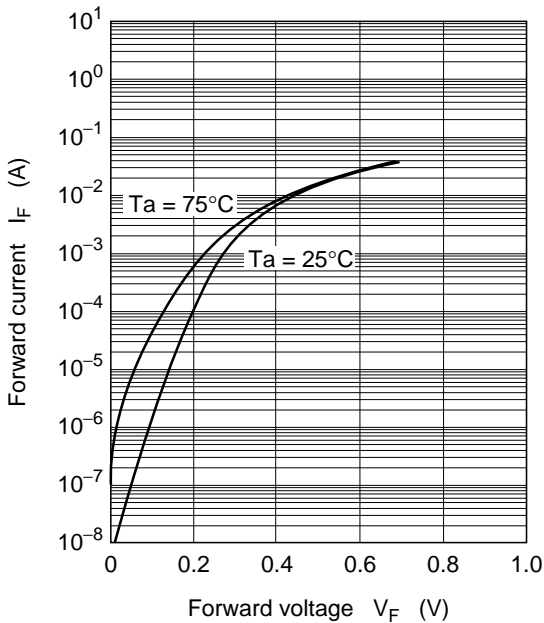


Fig.1 Forward current Vs. Forward voltage

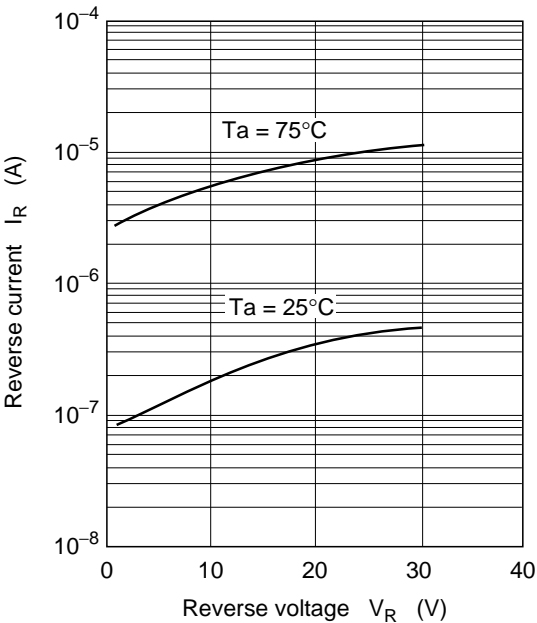


Fig.2 Reverse current Vs. Reverse voltage

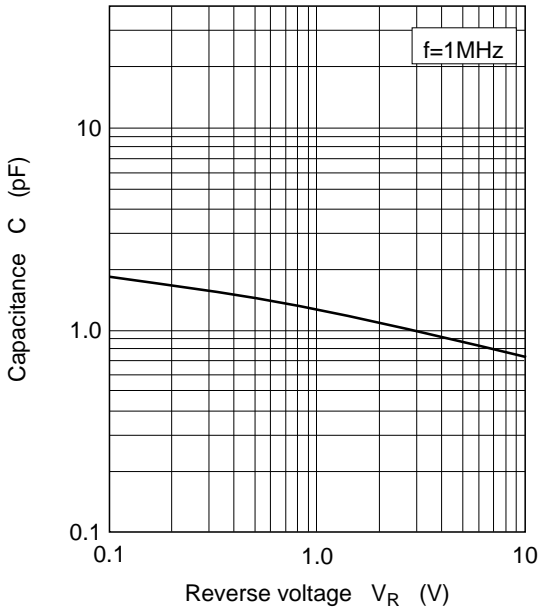
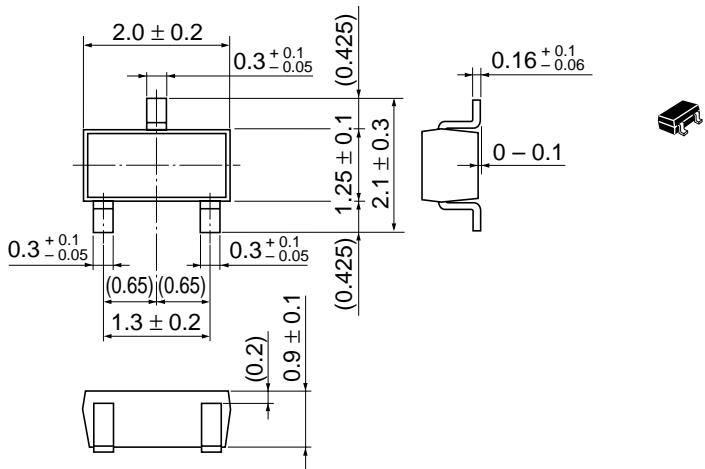


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

As of January, 2001  
Unit: mm



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

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