

HSB278S

Silicon Schottky Barrier Diode for High Speed Switching

HITACHI

ADE-208-1383 (Z)

Rev.0

Mar. 2001

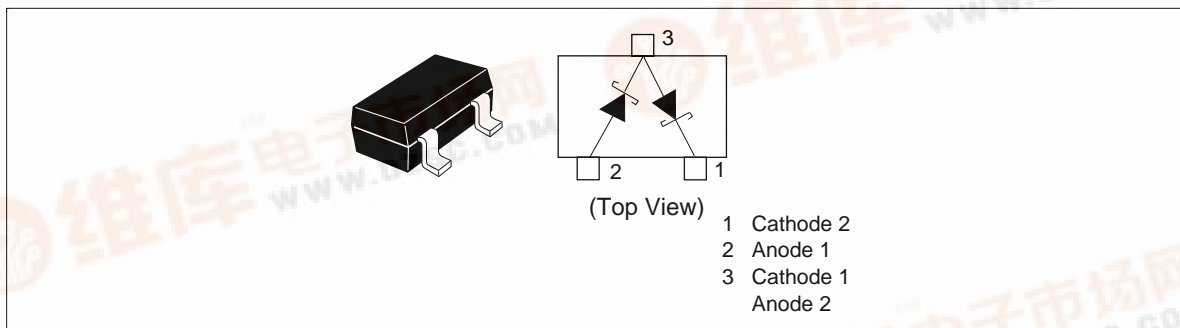
Features

- 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



HSB278S

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, $R_L = 0 \Omega$, Both forward and reverse direction 1 pulse.

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

Main Characteristic

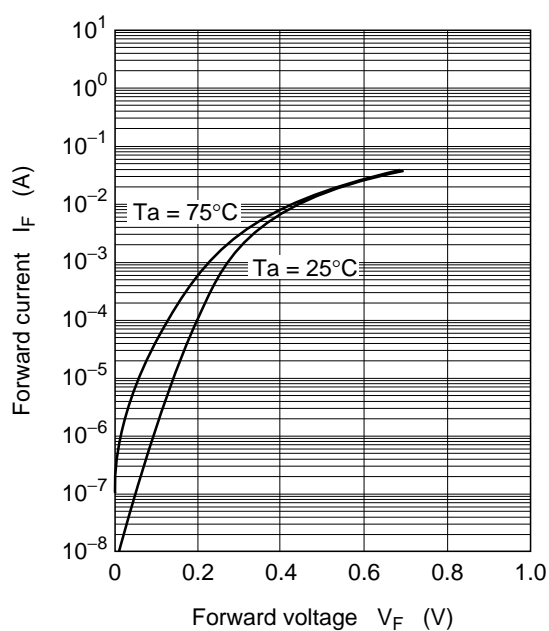


Fig.1 Forward current Vs. Forward voltage

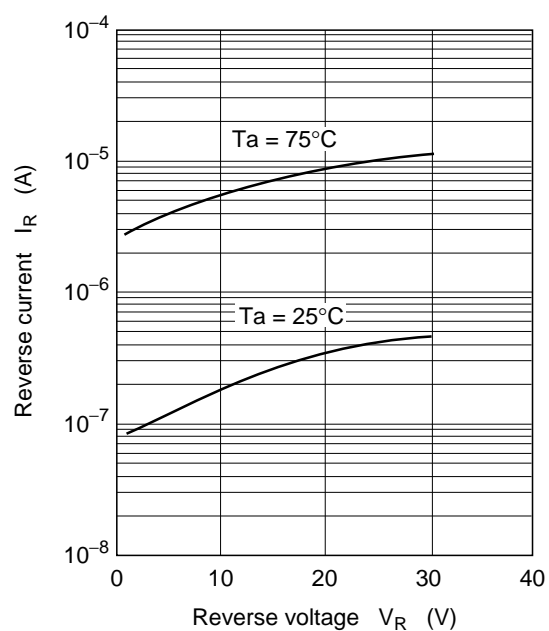


Fig.2 Reverse current Vs. Reverse voltage

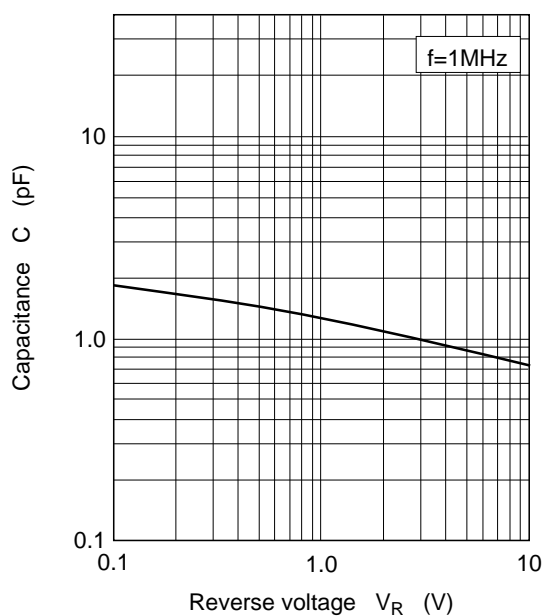
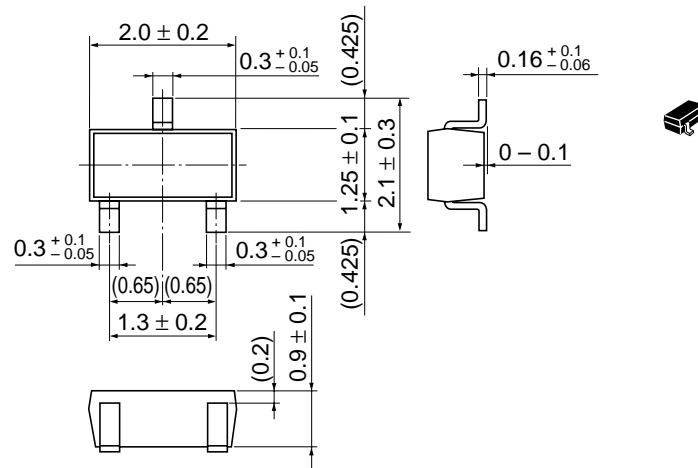


Fig.3 Capacitance Vs. Reverse voltage

HSB278S

Package Dimensions

As of January, 2001
Unit: mm



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

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