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

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HSB276S

Silicon Schottky Barrier Diode for Balanced Mixer

RENESAS

ADE-208-780 (Z)

Rev. 0
Mar. 1999

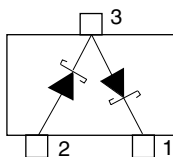
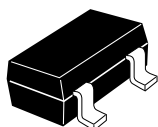
Features

- High forward current, Low capacitance.
- HSB276S which is interconnected in series configuration is designed for balanced mixer use.
- CMPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Code
HSB276S	C2	CMPAK

Pin Arrangement



(Top View)

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

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	3	V
Average rectified current	I_{O}^{*1}	30	mA
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

Note 1. Per one device

Electrical Characteristics**

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse voltage	V_R	3	—	—	V	$I_R = 1 \text{ mA}$
Reverse current	I_R	—	—	50	μA	$V_R = 0.5\text{V}$
Forward current	I_F	35	—	—	mA	$V_F = 0.5\text{V}$
Capacitance	C	—	—	0.90	pF	$V_R = 0.5\text{V}$, f = 1 MHz
Capacitance deviation	ΔC	—	—	0.10	pF	$V_R = 0.5\text{V}$, f = 1 MHz
ESD-Capability ^{*2}	—	30	—	—	V	C=200pF, Both forward and reverse direction 1 pulse.

Note 1. Per one device

Note 2. Failure criterion ; $I_R \geq 100\mu\text{A}$ at $V_R = 0.5 \text{ V}$

Main Characteristic

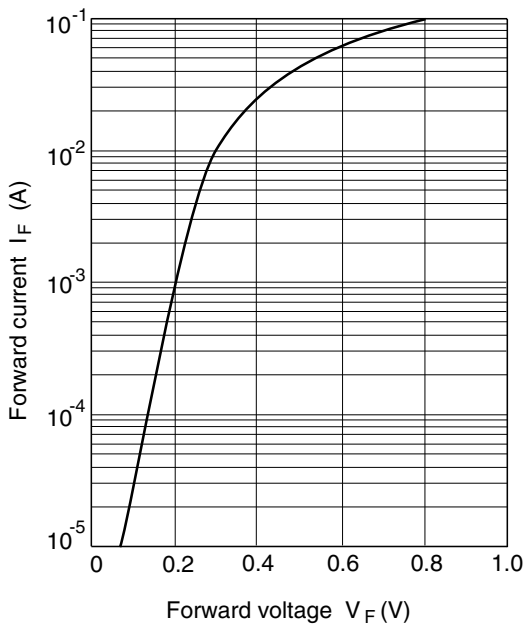


Fig.1 Forward current Vs. Forward voltage

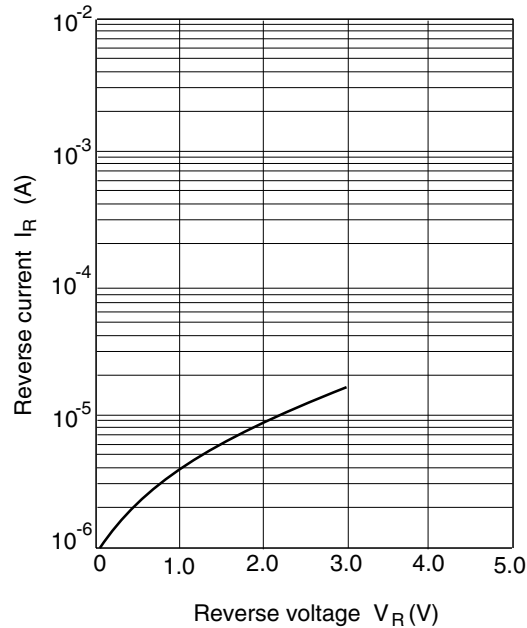


Fig.2 Reverse current Vs. Reverse voltage

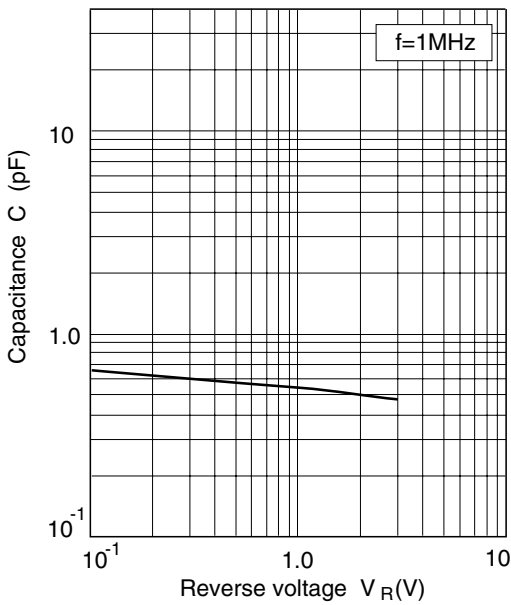
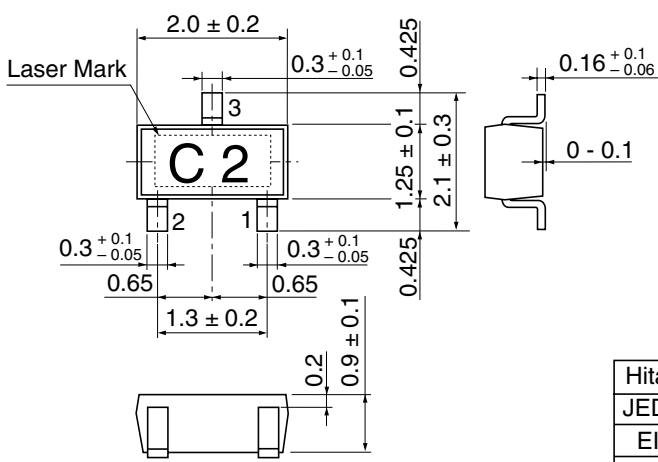


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit : mm



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

Hitachi Code	CMPAK
JEDEC Code	—
EIAJ Code	SC-70
Weight (g)	0.006

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Sales Offices

HITACHI

Hitachi, Ltd.

Semiconductor & Integrated Circuits

Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Tel: (03) 3270-2111 Fax: (03) 3270-5109

URL	NorthAmerica	: http://semiconductor.hitachi.com/
	Europe	: http://www.hitachi-eu.com/hel/ecg
	Asia	: http://sicapac.hitachi-asia.com
	Japan	: http://www.hitachi.co.jp/Sicd/indx.htm

For further information write to:

Hitachi Semiconductor (America) Inc. 179 East Tasman Drive San Jose, CA 95134 Tel: <1> (408) 433-1990 Fax: <1> (408) 433-0223	Hitachi Europe Ltd. Electronic Components Group Whitebrook Park Lower Cookham Road Maidenhead Berkshire SL6 8YA, United Kingdom Tel: <44> (1628) 585000 Fax: <44> (1628) 585200
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Hitachi Europe GmbH
Electronic Components Group
Dornacher Straße 3
D-85622 Feldkirchen, Munich
Germany
Tel: <49> (89) 9 9180-0
Fax: <49> (89) 9 29 30 00

Hitachi Asia Ltd.
Hitachi Tower
16 Collyer Quay #20-00
Singapore 049318
Tel: <65>-538-6533/538-8577
Fax: <65>-538-6933/538-3877
URL: <http://www.hitachi.com.sg>

Hitachi Asia Ltd.
(Taipei Branch Office)
4/F, No. 167, Tun Hwa North Road
Hung-Kuo Building
Taipei (105), Taiwan
Tel: <886>-(2)-2718-3666
Fax: <886>-(2)-2718-8180
Telex: 23222 HAS-TP
URL: <http://www.hitachi.com.tw>

Hitachi Asia (Hong Kong) Ltd.
Group III (Electronic Components)
7/F., North Tower
World Finance Centre,
Harbour City, Canton Road
Tsim Sha Tsui, Kowloon
Hong Kong
Tel: <852>-(2)-735-9218
Fax: <852>-(2)-730-0281
URL: <http://semiconductor.hitachi.com.hk>

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