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

Cautions

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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HSM276S

Silicon Schottky Barrier Diode for Balanced Mixer

RENESAS

ADE-208-039F (Z)

Rev.6
Apr. 2002

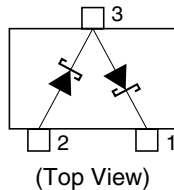
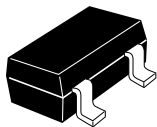
Features

- High forward current, Low capacitance.
- HSM276S which is interconnected in series configuration is designed for balanced mixer use.
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Code
HSM276S	C2	MPAK

Pin Arrangement



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 *1

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse voltage	V_R	3.0	—	—	V	$I_R = 1$ mA
Reverse current	I_R	—	—	50	μA	$V_R = 0.5$ V
Forward current	I_F	35	—	—	mA	$V_F = 0.5$ V
Capacitance	C	—	—	0.90	pF	$V_R = 0.5$ V, f = 1 MHz
Capacitance deviation	ΔC	—	—	0.10	pF	$V_R = 0.5$ V, f = 1 MHz
ESD-Capability *2	—	30	—	—	V	C = 200 pF, R = 0 Ω, Both forward and reverse direction 1 Pulse.

Notes: 1. Per one device

2. Failure criterion ; $I_R \geq 100$ μA at $V_R = 0.5$ V

Main Characteristic

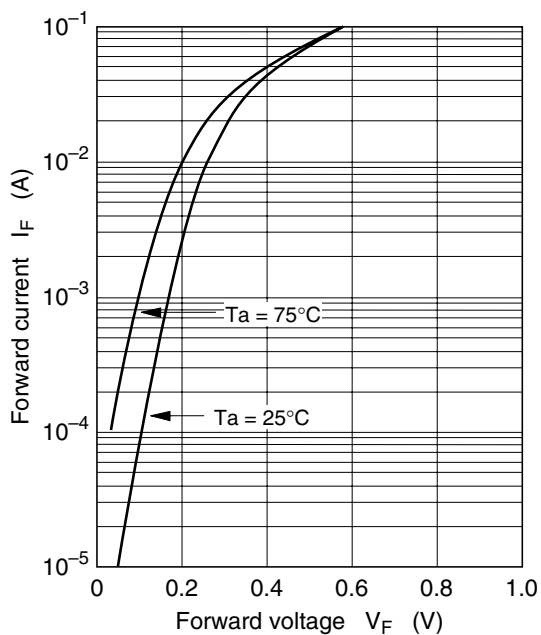


Fig.1 Forward current vs. Forward voltage

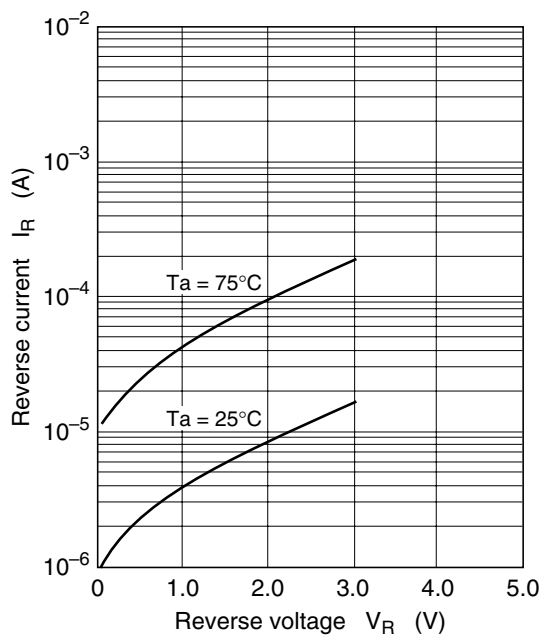


Fig.2 Reverse current vs. Reverse voltage

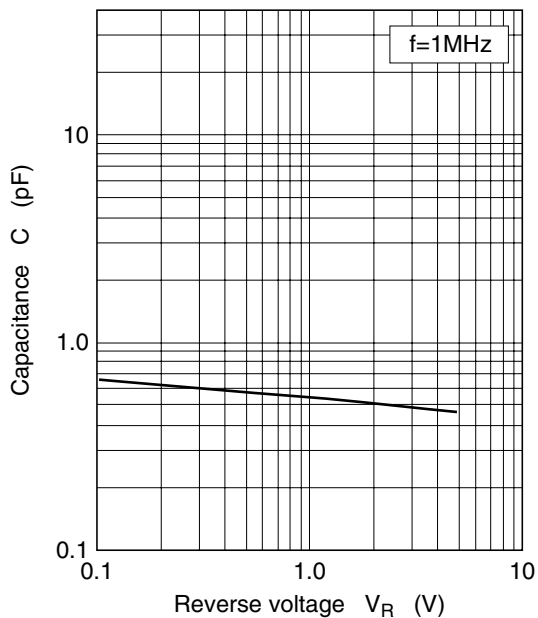
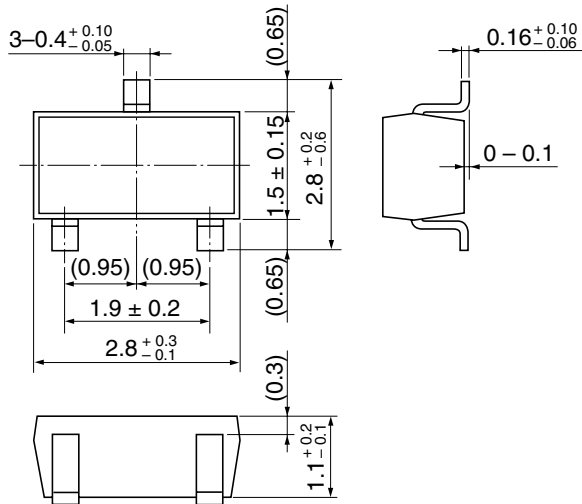


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

As of January, 2002

Unit: mm



Hitachi Code	MPAK
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.011 g

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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 <http://www.hitachisemiconductor.com/>

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

Hitachi Europe GmbH
Electronic Components Group
Dornacher Straße 3
D-85622 Feldkirchen
Postfach 201, D-85619 Feldkirchen
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>-6538-6533/6538-8577
Fax: <65>-6538-6933/6538-3877
URL: <http://semiconductor.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>-2735-9218
Fax: <852>-2730-0281
URL: <http://semiconductor.hitachi.com.hk>

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