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

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Keep safety first in your circuit designs!

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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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HSC119

Silicon Epitaxial Planar Diode for High Speed Switching

RENESAS

ADE-208-615 (Z)

Rev. 0
Apr. 1998

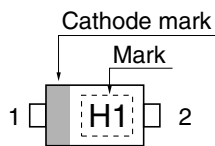
Features

- Low capacitance. ($C=2.0\text{pF}$ max)
- Short reverse recovery time. ($t_r=3.0\text{ns}$ max)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HSC119	H1	UFP

Pin Arrangement



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Average forward current	I_O	100	mA
Peak rectified current	I_{FM}	300	mA
Non-Repetitive peak forward surge current	I_{FSM}^{*1}	4	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55 to +125	°C

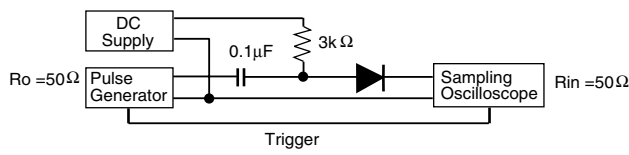
Note 1. Within 1μs forward surge current.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.8	V	$I_F = 10\text{ mA}$
	V_{F2}	—	—	1.2		$I_F = 100\text{ mA}$
Reverse current	I_R	—	—	0.1	μA	$V_R = 80\text{ V}$
Capacitance	C	—	—	2.0	pF	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$
Reverse recovery time* ¹	t_{rr}	—	—	3.0	ns	$I_F = 10\text{ mA}$, $V_R = 6\text{ V}$, $R_L = 50\text{ }\Omega$

Notes 1. Reverse recovery time test circuit



Main Characteristic

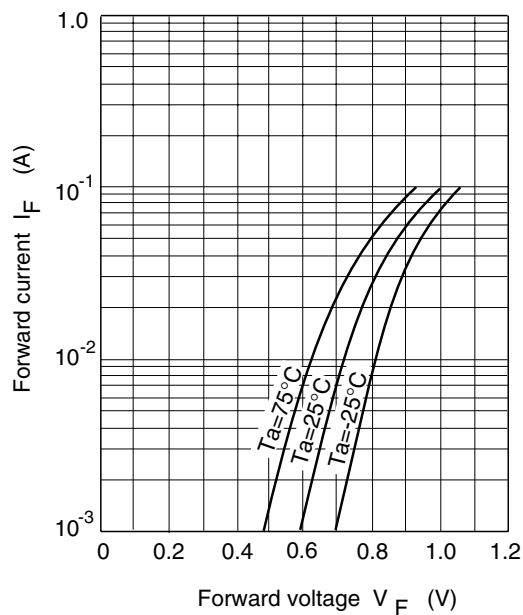


Fig.1 Forward current Vs. Forward voltage

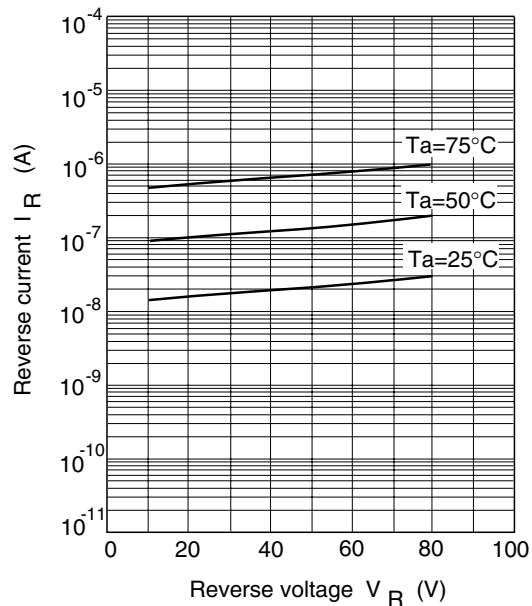


Fig.2 Reverse current Vs. Reverse voltage

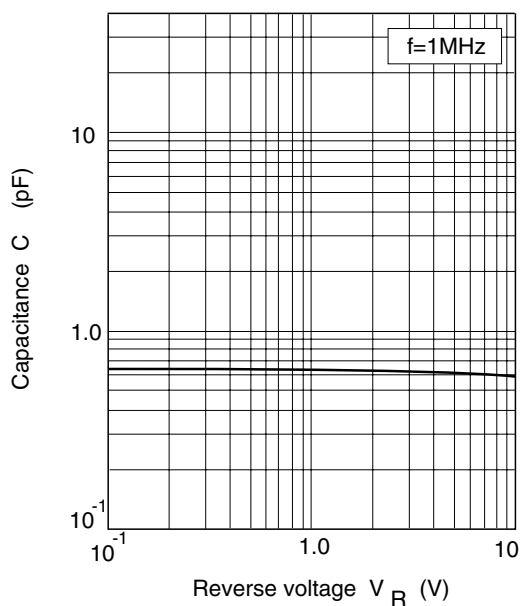
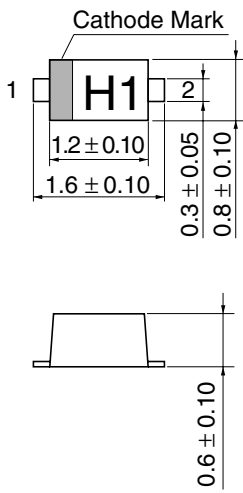


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



- 1. Cathode
- 2. Anode

Hitachi Code	UFP
JEDEC Code	—
EIAJ Code	SC-79
Weight(g)	0.0016

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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
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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, 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
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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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