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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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HSC119

Silicon Epitaxial Planar Diode for High Speed Switching

RENESAS

ADE-208-615 (Z)

Rev. 0
Apr. 1998

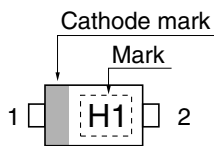
Features

- 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

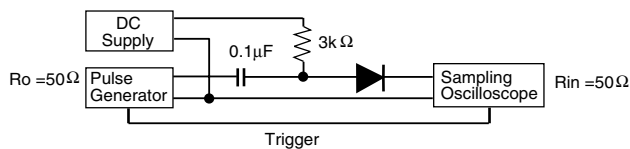
Note 1. Within 1μs forward surge current.

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	$V_R = 80V$
Capacitance	C	—	—	2.0	pF	$V_R = 0V, f = 1 \text{ MHz}$
Reverse recovery time*1	t_{rr}	—	—	3.0	ns	$I_F = 10 \text{ mA}, V_R = 6V, R_L = 50 \Omega$

Notes 1. Reverse recovery time test circuit



Main Characteristic

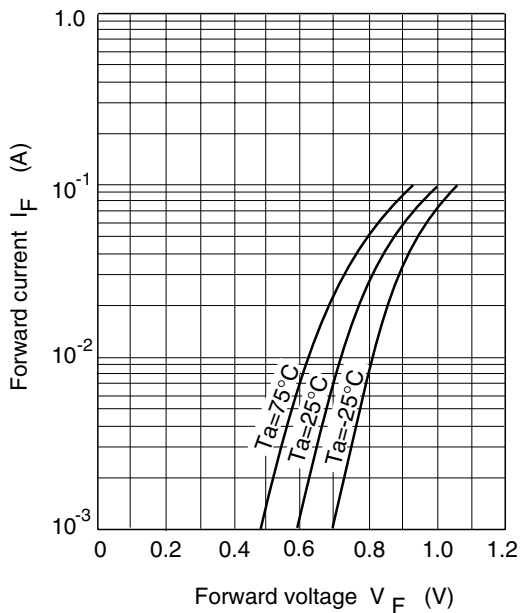


Fig.1 Forward current Vs. Forward voltage

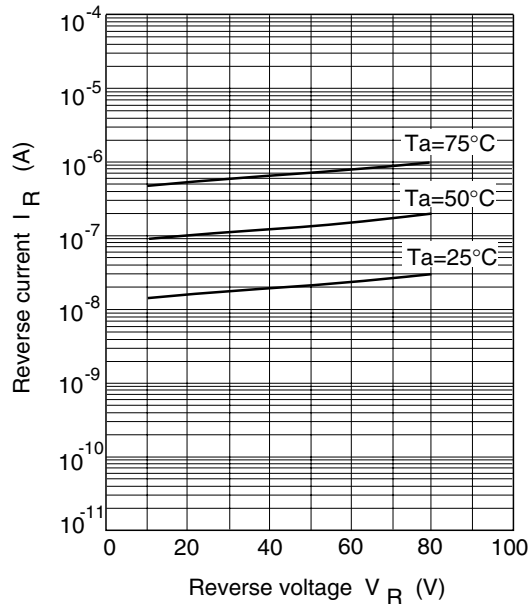


Fig.2 Reverse current Vs. Reverse voltage

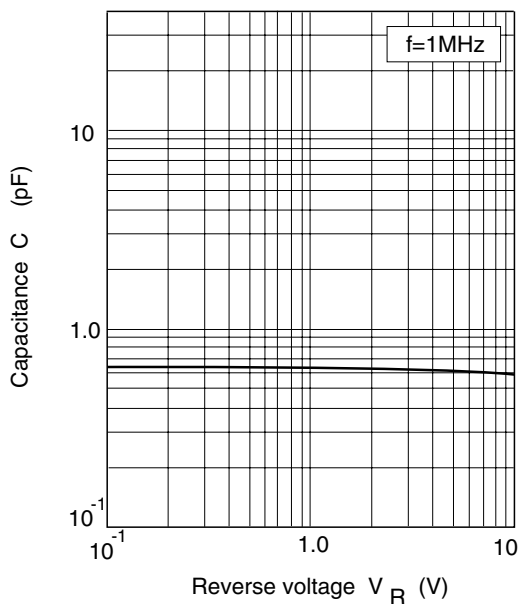
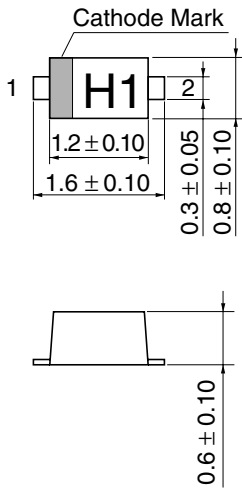


Fig.3 Capacitance Vs. Reverse voltage

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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