

To all our customers

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

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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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# HSM126S

Silicon Schottky Barrier Diode for System Protection

# RENESAS

ADE-208-111C (Z)

Rev. 3  
May 1995

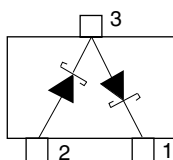
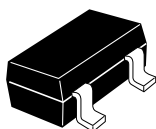
## Features

- HSM126S which is connected in series configuration enable to protect electric systems from miss-operation against external + and – surge.
- Low  $V_F$  and low leakage current.
- MPAK package is suitable for high density surface mounting and high speed assembly.

## Ordering Information

Type No.	Laser Mark	Package Code
HSM126S	S14	MPAK

## Pin Arrangement



(Top View)

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

## Absolute Maximum Ratings\*<sup>3</sup>

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}$	20	V
Average forward current	$I_O^{*1}$	200	mA
Non-Repetitive peak forward surge current	$I_{FSM}^{*2}$	2	A
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

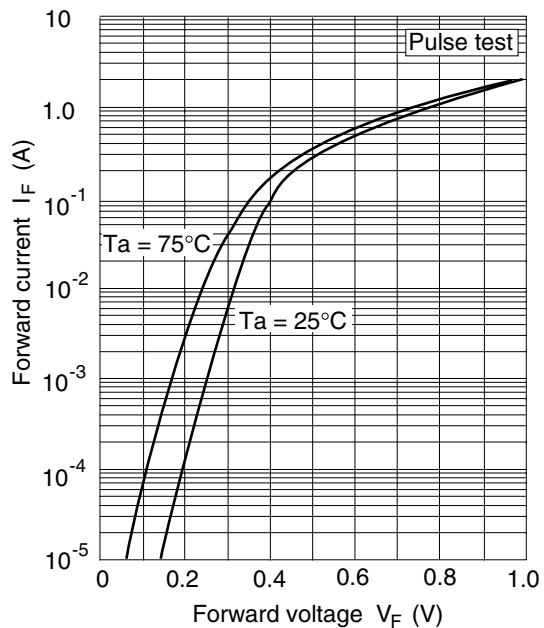
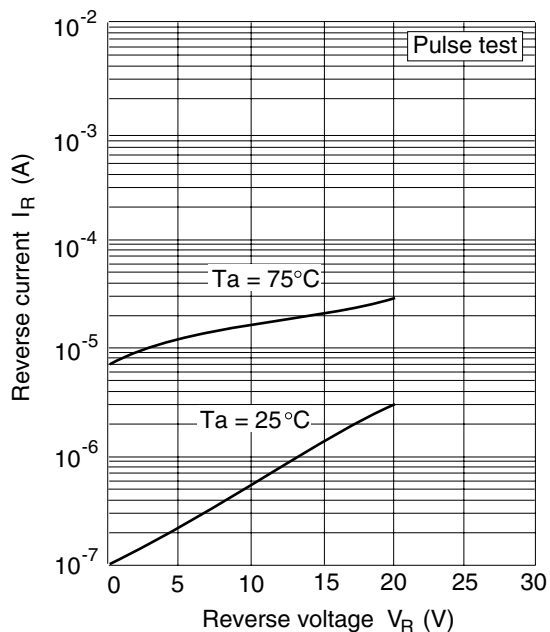
Notes: 1. Sine wave, Two device total  
2. 50Hz half sine wave 1 pulse  
3. Per one device

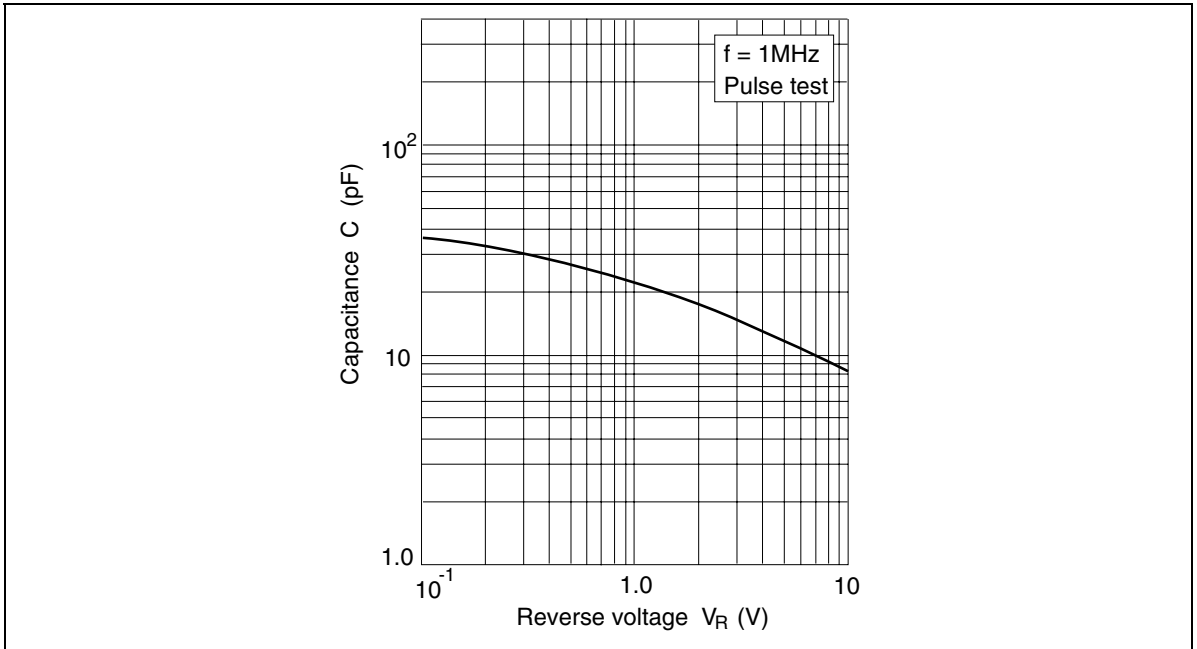
## Electrical Characteristics\*

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_R$	—	—	2.0	μA	$V_R = 5V$
Forward voltage	$V_F$	—	—	0.35	V	$I_F = 10mA$
Capacitance	C	—	40	—	pF	$V_R = 0V, f = 1MHz$

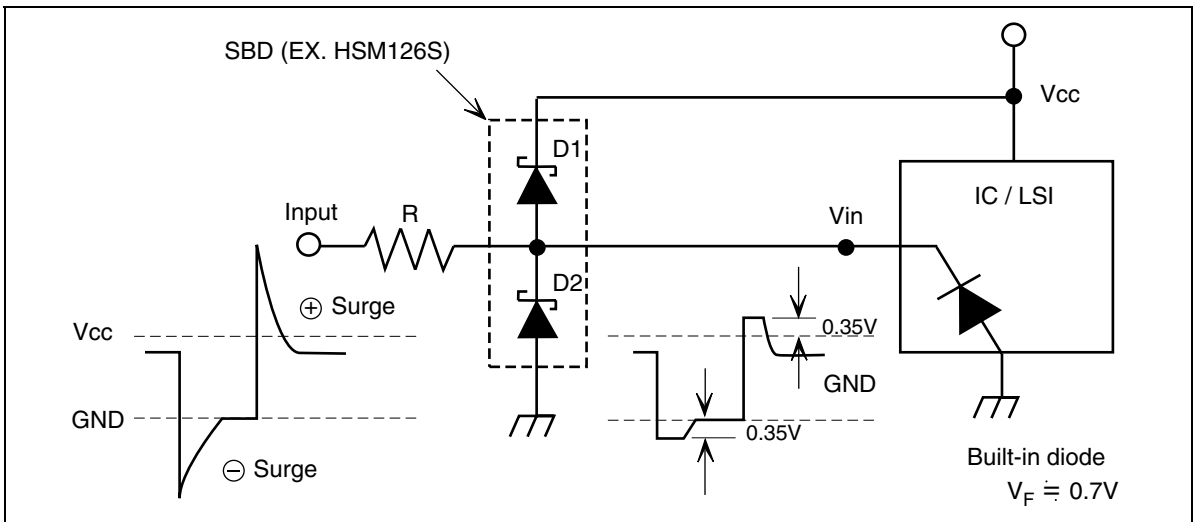
Note: Per one device

**Fig.1 Forward current Vs. Forward voltage****Fig.2 Reverse current Vs. Reverse voltage**



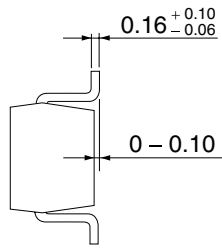
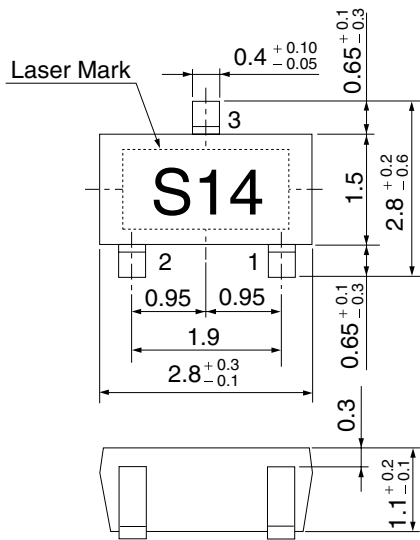
**Fig.3 Capacitance Vs. Reverse voltage**

## Example of application circuite



Package Dimensions

Unit: mm



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

HITACHI Code	MPAK(1)
JEDEC Code	—
EIAJ Code	SC-59A
Weight (g)	0.011

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