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!

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# HSM124S

Silicon Epitaxial Planar Diode for Switching

RENESAS

ADE-208-041E (Z)

Rev.5
Jul. 2000

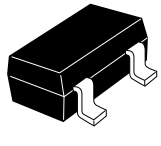
## Features

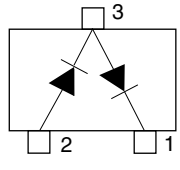
- Low reverse current.
- MPAK package is suitable for high density surface mounting and high speed assembly.

## Ordering Information

| Type No. | Laser Mark | Package Code |
|---|---|---|
| HSM124S | A1 | MPAK |

## Pin Arrangement






(Top View)

1 Cathode 2
2 Anode 1
3 Cathode 1
Anode 2

## Absolute Maximum Ratings *[2]

(Ta = 25°C)

| Item | Symbol | Value | Unit |
|---|---|---|---|
| Peak reverse voltage | $V_{RM}$ | 85 | V |
| Reverse voltage | $V_R$ | 80 | V |
| Peak forward current | $I_{FM}$ | 300 | mA |
| Non-Repetitive peak forward surge current | $I_{FSM}$ *[1] | 4 | A |
| Average forward current | $I_O$ | 100 | mA |
| Junction temperature | Tj | 125 | °C |
| Storage temperature | Tstg | –55 to +125 | °C |

Notes: 1. Within 1µs forward surge current.
2. Per one device

## Electrical Characteristics *

(Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|---|---|---|---|---|---|---|
| Forward voltage | $V_{F1}$ | — | — | 1.0 | V | $I_F$ = 10 mA |
| | $V_{F2}$ | — | — | 1.0 | | $I_F$ = 50 mA |
| | $V_{F3}$ | — | — | 1.2 | | $I_F$ = 100 mA |
| Reverse current | $I_R$ | — | — | 0.01 | µA | $V_R$ = 80 V |
| Capacitance | C | — | — | 4.0 | pF | $V_R$ = 0 V, f = 1 MHz |
| Reverse recovery time | $t_{rr}$ | — | — | 100 | ns | $I_F$ = 10 mA, $V_R$ = 6 V, $R_L$ = 50 Ω |

Note: Per one device

## Main Characteristic

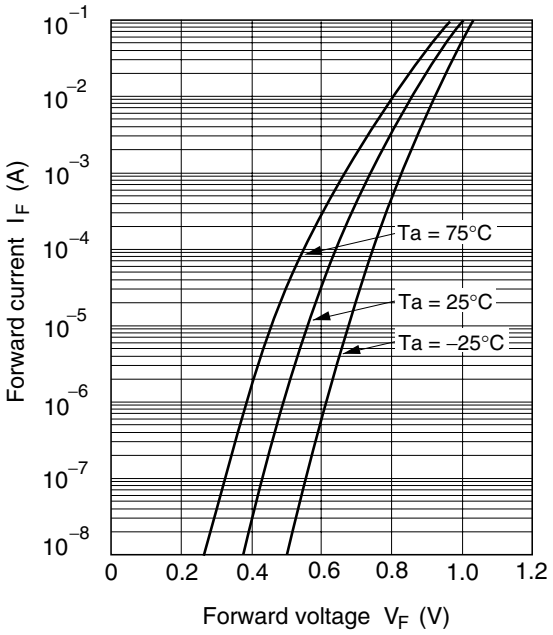



Fig.1 Forward current Vs. Forward voltage

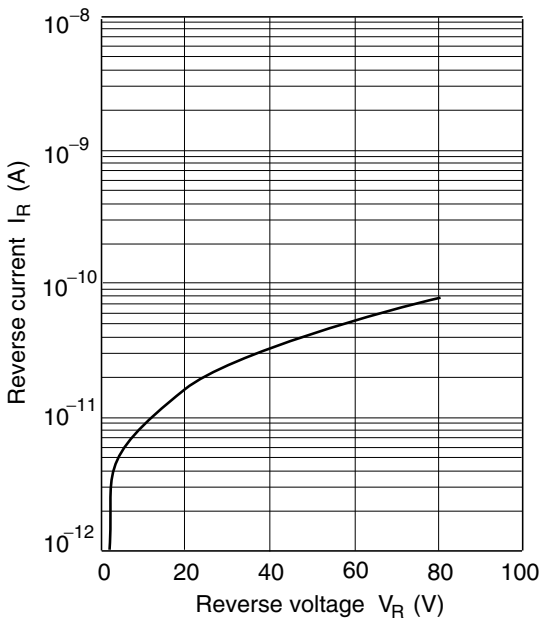



Fig.2 Reverse current Vs. Reverse voltage

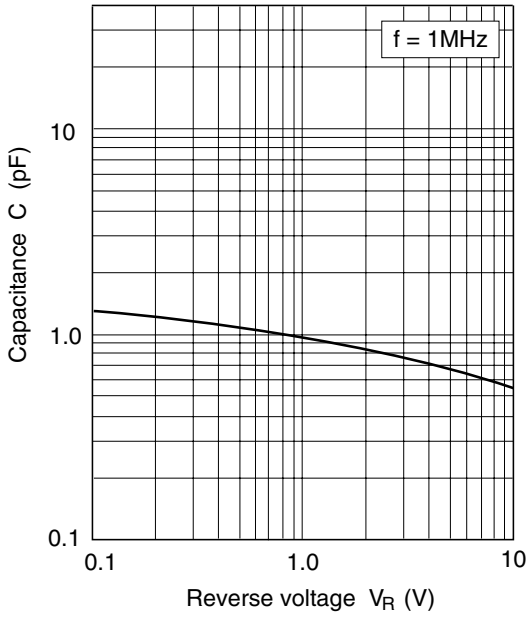
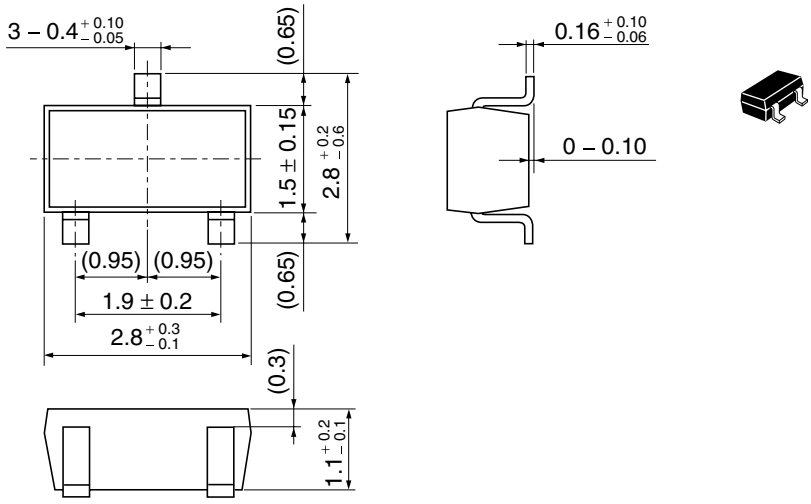



Fig.3 Capacitance Vs. Reverse voltage

## Package Dimensions

Unit: mm




| | |
|---|---|
| Hitachi Code | MPAK |
| JEDEC | — |
| EIAJ | 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 NorthAmerica : http://semiconductor.hitachi.com/
Europe : http://www.hitachi-eu.com/hel/ecg
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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

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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