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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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HSM124S

Silicon Epitaxial Planar Diode for Switching

RENESAS

ADE-208-041E (Z)

Rev.5
Jul. 2000

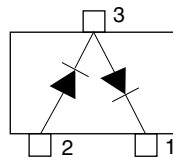
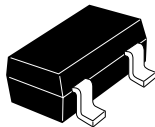
Features

- 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

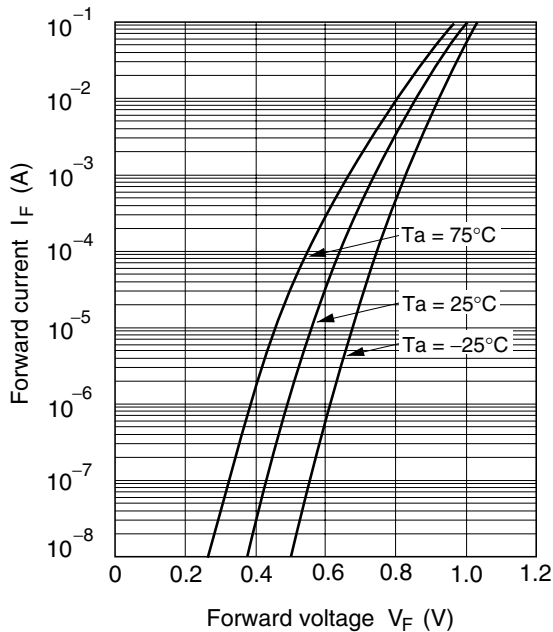


Fig.1 Forward current Vs. Forward voltage

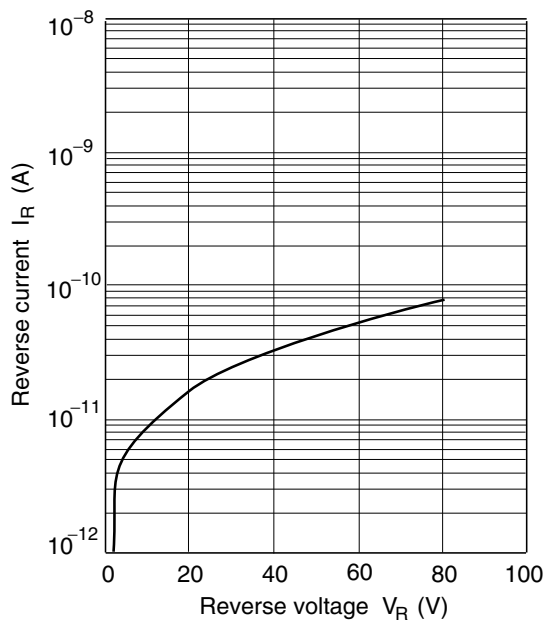


Fig.2 Reverse current Vs. Reverse voltage

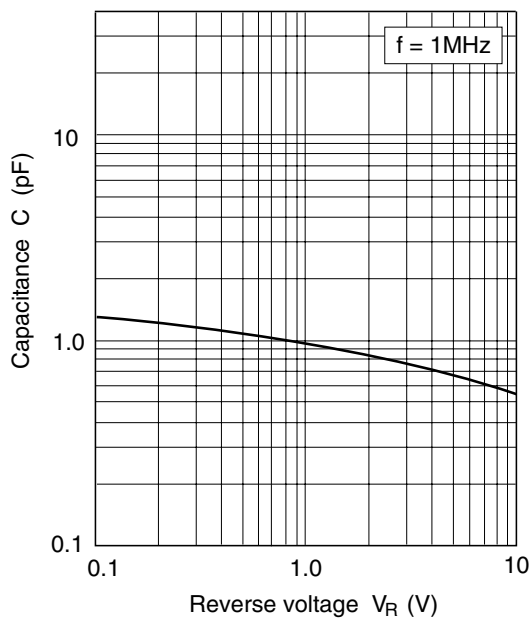
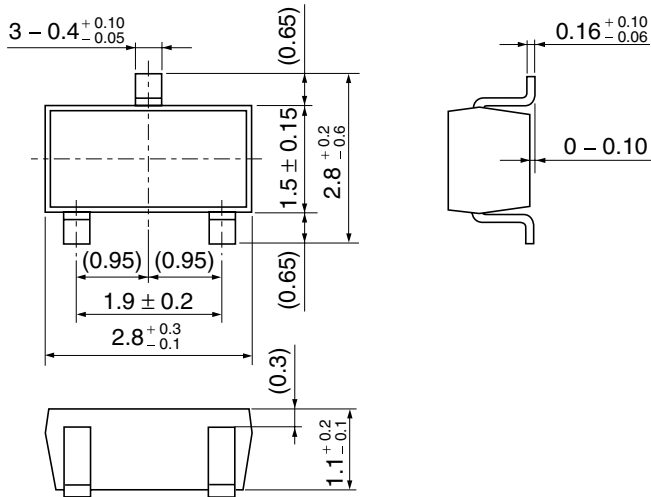


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



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

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