

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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# HSK122

Silicon Epitaxial Planar Diode for High Voltage Switching

# RENESAS

ADE-208-172D (Z)

Rev.4  
Dec. 2000

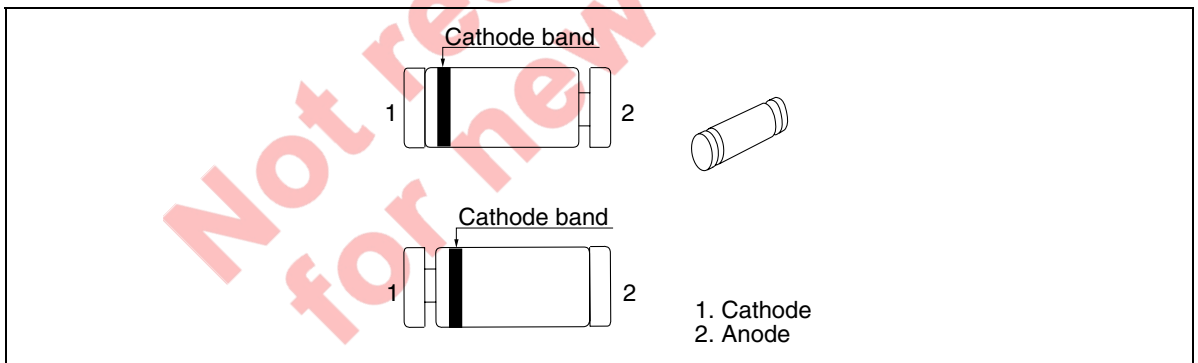
## Features

- High reverse voltage. ( $V_R = 400\text{ V}$ )
- LLD package is suitable for high density surface mounting and high speed assembly.

## Ordering Information

Type No.	Cathode band	Package Code
HSK122	Orange	LLD

## Pin Arrangement



**Absolute Maximum Ratings**

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	410	V
Reverse voltage	$V_R$	400	V
Peak forward current	$I_{FM}$	625	mA
Non-Repetitive peak forward surge current	$I_{FSM}^{*1}$	1	A
Average forward current	$I_O$	150	mA
Junction temperature	Tj	175	°C
Storage temperature	Tstg	-65 to +175	°C

Note: Within 1s forward surge current.

**Electrical Characteristics**

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	1.2	V	$I_F = 100$ mA
Reverse current	$I_R$	—	—	1.0	$\mu$ A	$V_R = 400$ V
Capacitance	C	—	—	10	pF	$V_R = 0$ V, $f = 1$ MHz
Reverse recovery time	$t_{rr}$	—	—	10	$\mu$ s	$I_F = 30$ mA, $V_R = 10$ V, $R_L = 2$ k $\Omega$

Main Characteristic

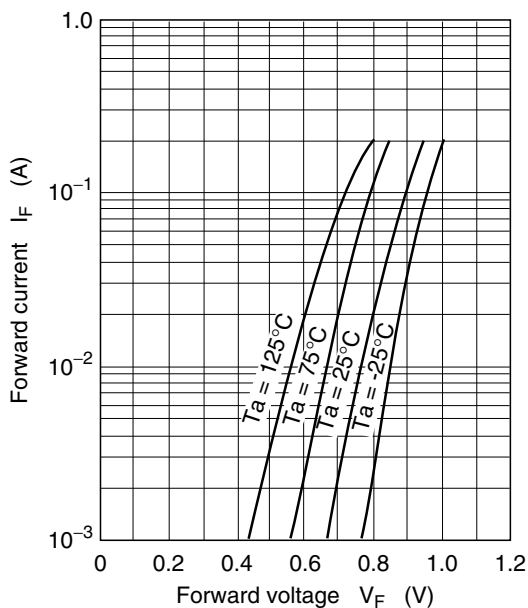


Fig.1 Forward current Vs. Forward voltage

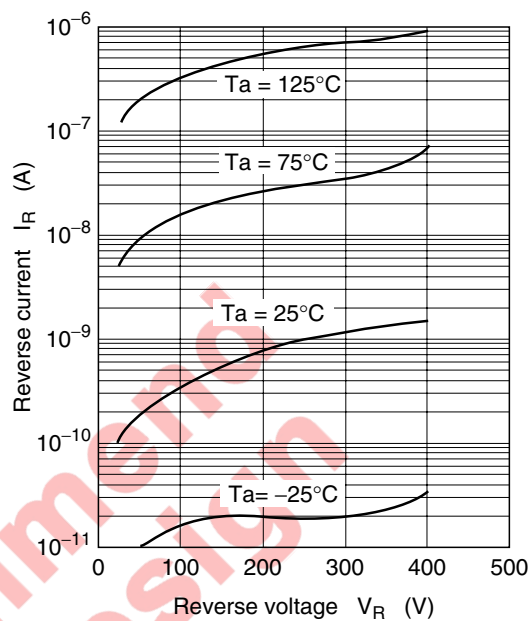


Fig.2 Reverse current Vs. Reverse voltage

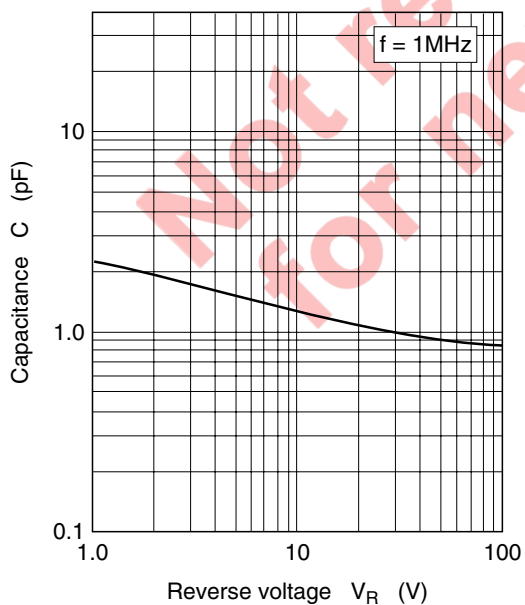
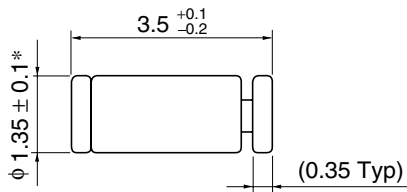


Fig.3 Capacitance Vs. Reverse voltage

## Package Dimensions

Unit: mm



\* HSK122:  $\phi 1.4 \pm 0.1$  type

Hitachi Code	LLD
JEDEC	—
EIAJ	—
Mass (reference value)	0.027 g

Not recommended  
for new designs

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