

To all our customers

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

## Cautions

Keep safety first in your circuit designs!

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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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# 1S2076

Silicon Epitaxial Planar Diode for High Speed Switching

# RENESAS

ADE-208-145B (Z)

Rev.2  
Oct. 2000

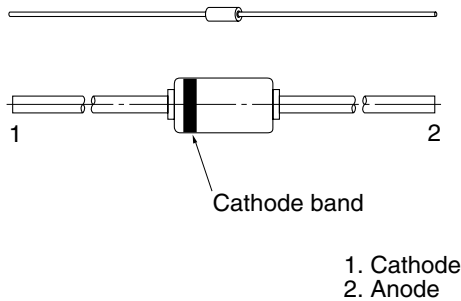
## Features

- Low capacitance. ( $C = 3.0 \text{ pF max}$ )
- Short reverse recovery time. ( $t_r = 8.0 \text{ ns max}$ )
- High reliability with glass seal.

## Ordering Information

Type No.	Cathode band	Package Code
1S2076	Light Blue	DO-35

## Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	35	V
Reverse voltage	$V_R$	30	V
Peak forward current	$I_{FM}$	450	mA
Non-Repetitive peak forward surge current	$I_{FSM}^*$	1	A
Average forward current	$I_O$	150	mA
Power dissipation	Pd	250	mW
Junction temperature	Tj	175	°C
Storage temperature	Tstg	-65 to +175	°C

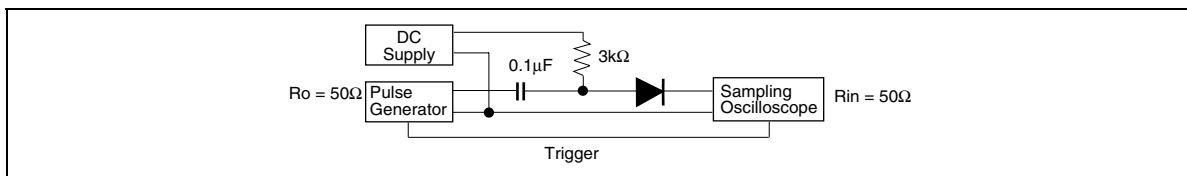
Note: Within 1s forward surge current.

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	0.64	—	0.8	V	$I_F = 10 \text{ mA}$
Reverse current	$I_R$	—	—	0.1	$\mu\text{A}$	$V_R = 30 \text{ V}$
Capacitance	C	—	—	3.0	pF	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$
Reverse recovery time	$t_{rr}^*$	—	—	8.0	ns	$I_F = I_R = 10 \text{ mA}, I_{rr} = 1 \text{ mA}$

Note: Reverse recovery time test circuit



Main Characteristic

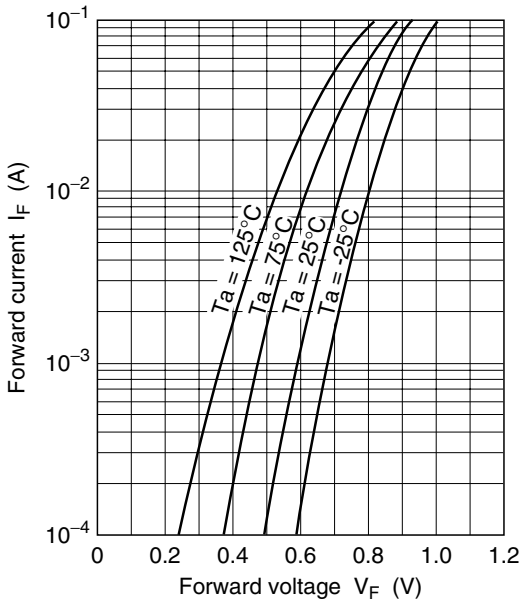


Fig.1 Forward current Vs. Forward voltage

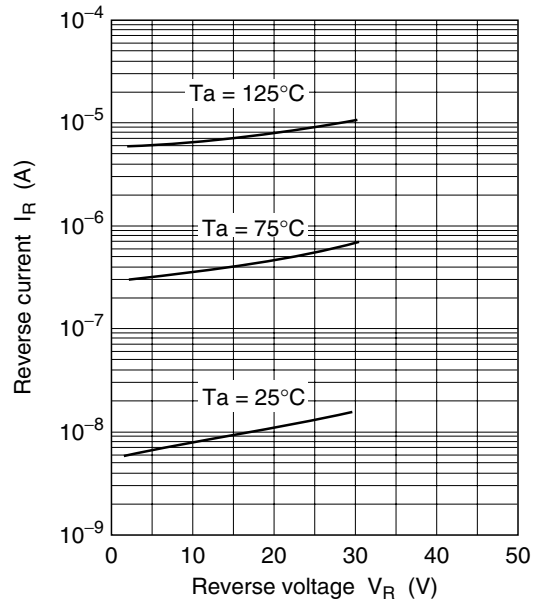


Fig.2 Reverse current Vs. Reverse voltage

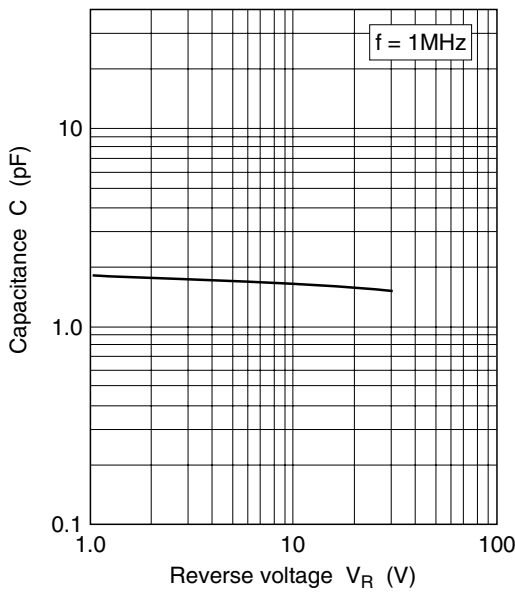
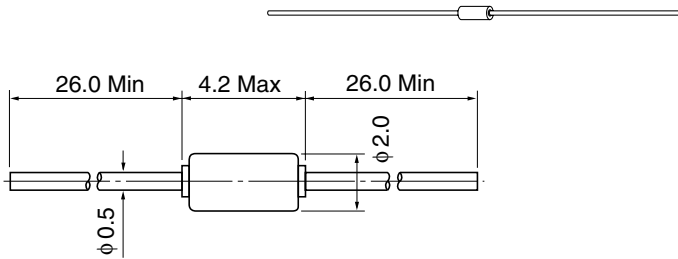


Fig.3 Capacitance Vs. Reverse voltage

## Package Dimensions

Unit: mm



Hitachi Code	DO-35
JEDEC	Conforms
EIAJ	Conforms
Mass (reference value)	0.13 g

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