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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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Not recommended
for new design

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1S2075(K)

Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0558-0400
 (Previous: ADE-208-144C)
 Rev.4.00
 Mar 16, 2005

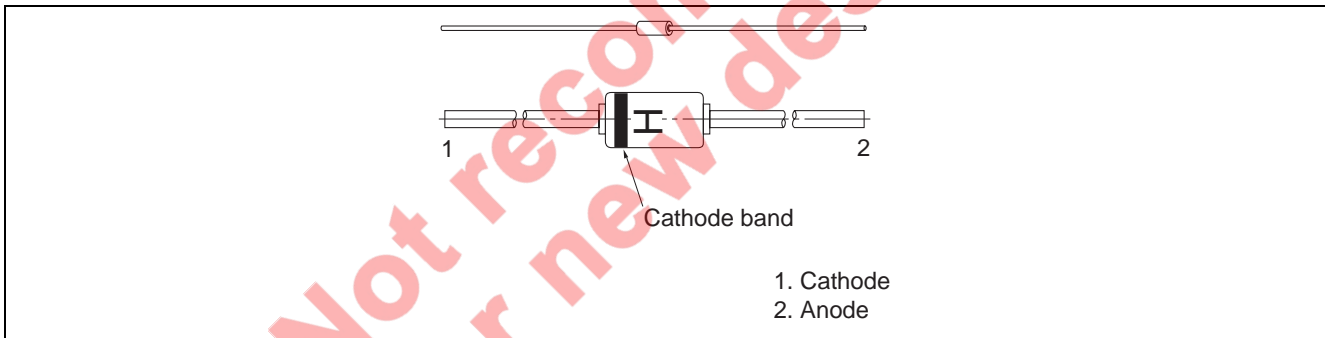
Features

- Low capacitance. ($C = 3.5 \text{ pF max}$)
- Short reverse recovery time. ($t_{rr} = 8.0 \text{ ns max}$)
- High reliability with glass seal.

Ordering Information

Type No.	Cathode band	Mark	Package Name	Package Code (Previous Code)
1S2075(K)	Green	H	DO-35	GRZZ0002ZB-A (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}^*	600	mA
Average rectified current	I_o	100	mA
Power dissipation	P_d	250	mW
Junction temperature	T_j	175	°C
Storage temperature	T_{stg}	-65 to +175	°C

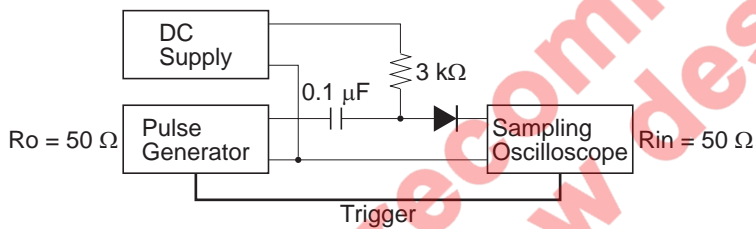
Note: * Within 1s forward surge current.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	0.8	V	$I_F = 10 \text{ mA}$
Reverse current	I_R	—	—	100	nA	$V_R = 30 \text{ V}$
Capacitance	C	—	—	3.5	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

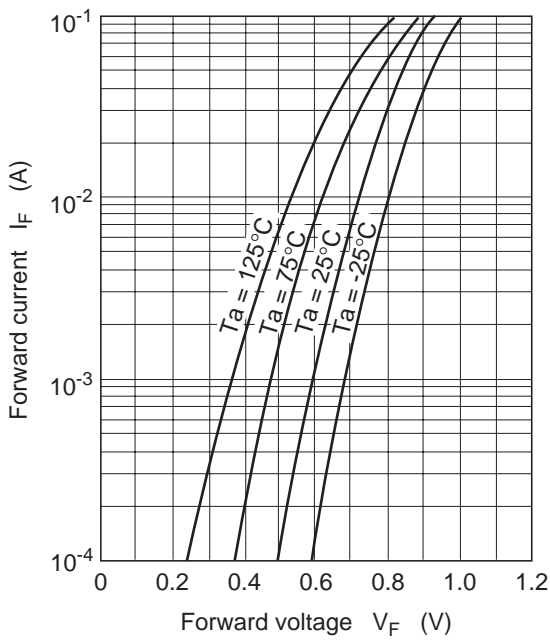


Fig.1 Forward current vs. Forward voltage

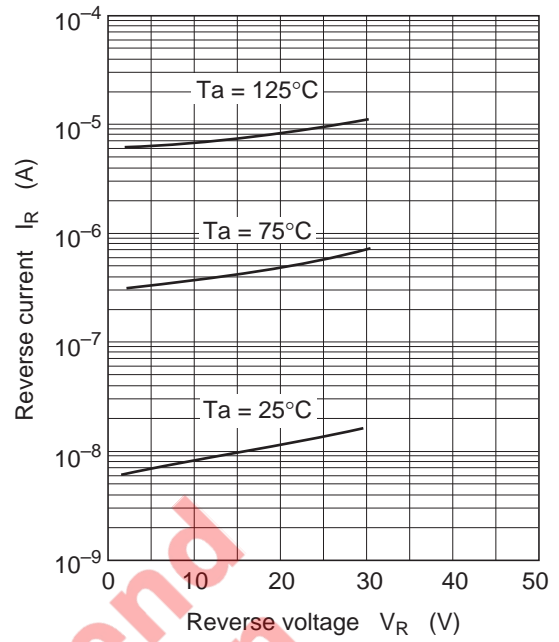


Fig.2 Reverse current vs. Reverse voltage

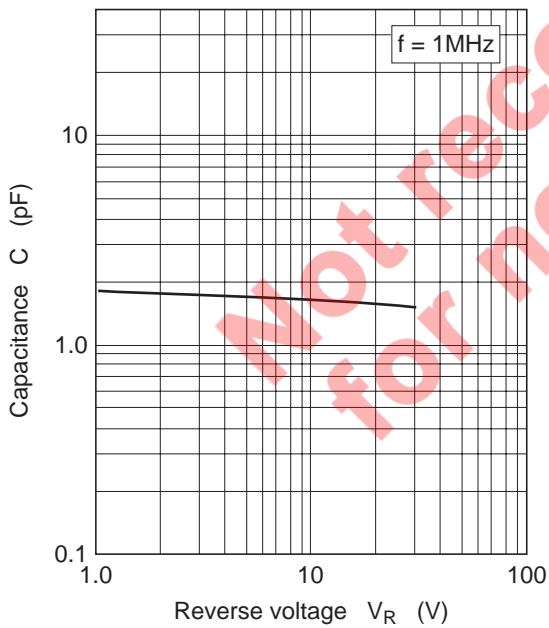
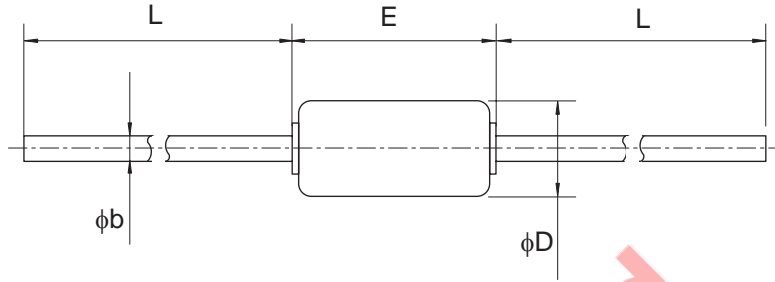


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
SC-40	GRZ2000ZZB-A	DO-35 / DO-35V	0.13g



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
ϕb	-	0.5	-
ϕD	-	2.0	-
E	-	-	4.2
L	26.0	-	-

Not recommend for new design

Keep safety first in your circuit designs!

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