To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

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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1S2076A

Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0560-0300
(Previous: ADE-208-146B)
Rev.3.00
Mar 16, 2005

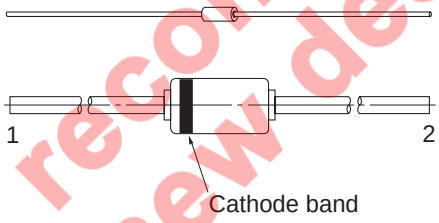
Features

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

Ordering Information

Type No.	Cathode band	Package Name	Package Code (Previous Code)
1S2076A	Navy Blue	DO-35	GRZZ0002ZB-A (DO-35)

Pin Arrangement



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	70	V
Reverse voltage	V_R	60	V
Peak forward current	I_{FM}	450	mA
Non-Repetitive peak forward surge current	I_{FSM} *	1	A
Average rectified current	I_O	150	mA
Power dissipation	Pd	250	mW
Junction temperature	Tj	175	°C
Storage temperature	Tstg	−65 to +175	°C

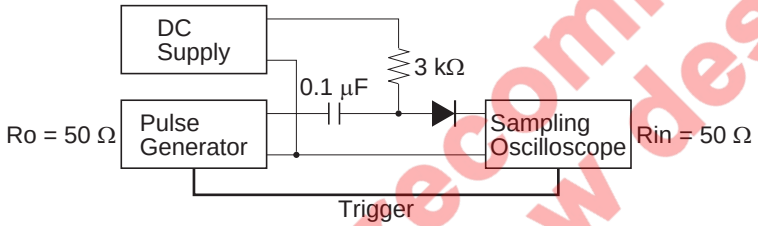
Note: Within 1s forward surge current.

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 mA
Reverse current	I_R	—	—	0.1	μA	V_R = 30 V
Capacitance	C	—	—	3.0	pF	V_R = 1 V, f = 1 MHz
Reverse recovery time	t_{rr} *	—	—	8.0	ns	I_F = I_R = 10 mA, Irr = 1 mA

Note: Reverse recovery time test circuit



Main Characteristic

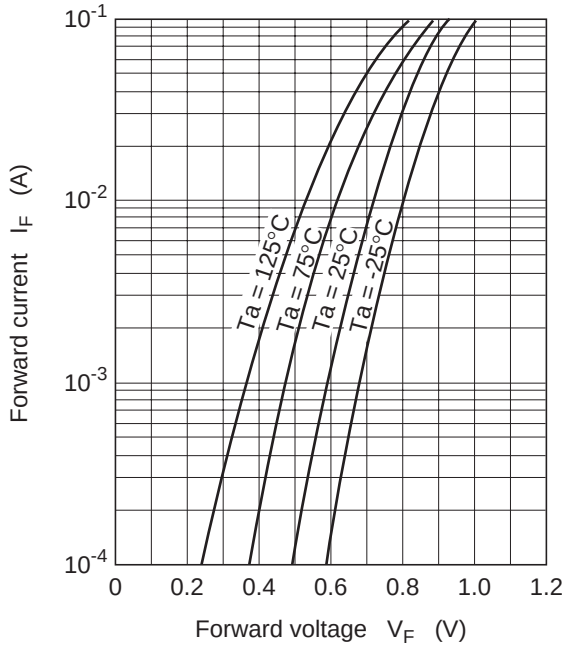


Fig.1 Forward current vs. Forward voltage

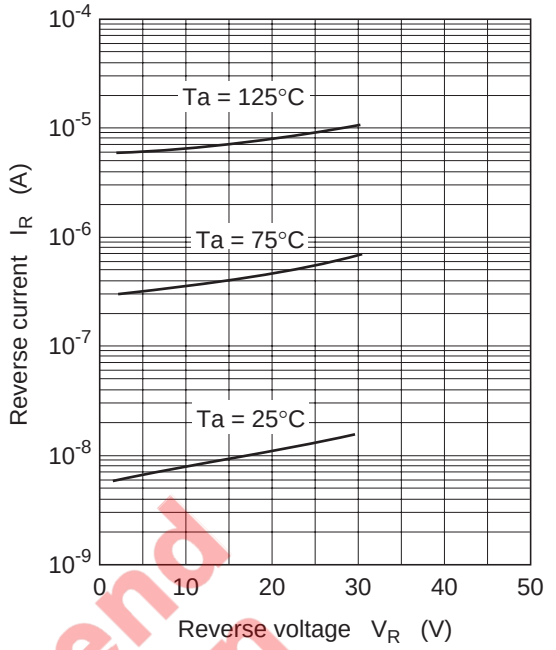


Fig.2 Reverse current vs. Reverse voltage

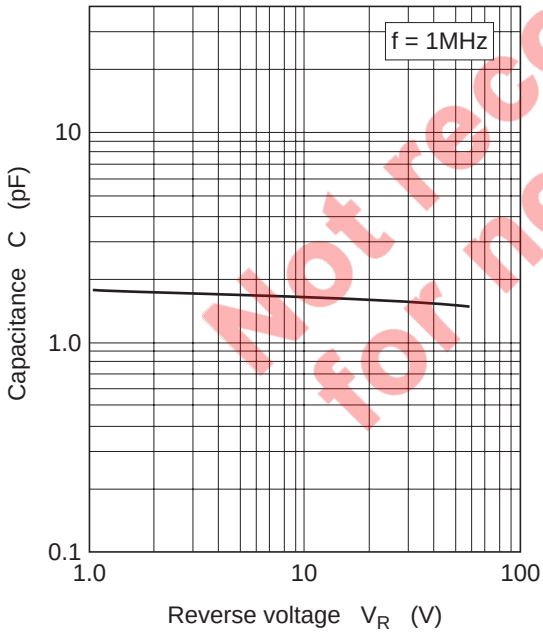
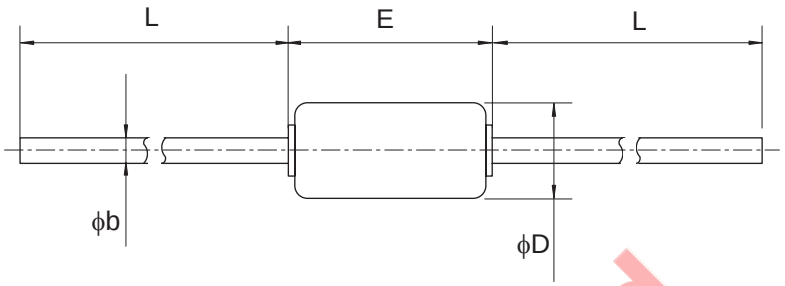


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
SC-40	GRZZ0002ZB-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	-	-

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