

1S2076A

Silicon Epitaxial Planar Diode for High Speed Switching

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

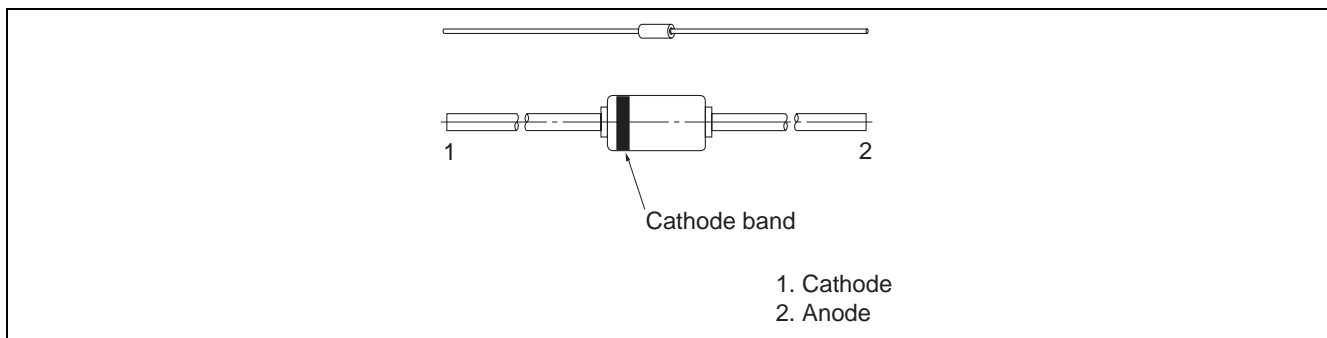
Features

- 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



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	P_d	250	mW
Junction temperature	T_j	175	°C
Storage temperature	T_{stg}	-65 to +175	°C

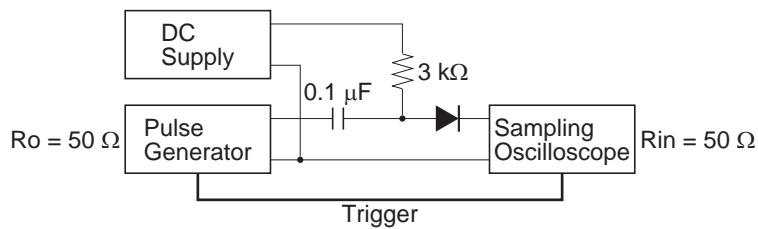
Note: * Within 1s forward surge current.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	0.64	—	0.8	V	$I_F = 10 \text{ mA}$
Reverse current	I_R	—	—	0.1	μA	$V_R = 30 \text{ V}$
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

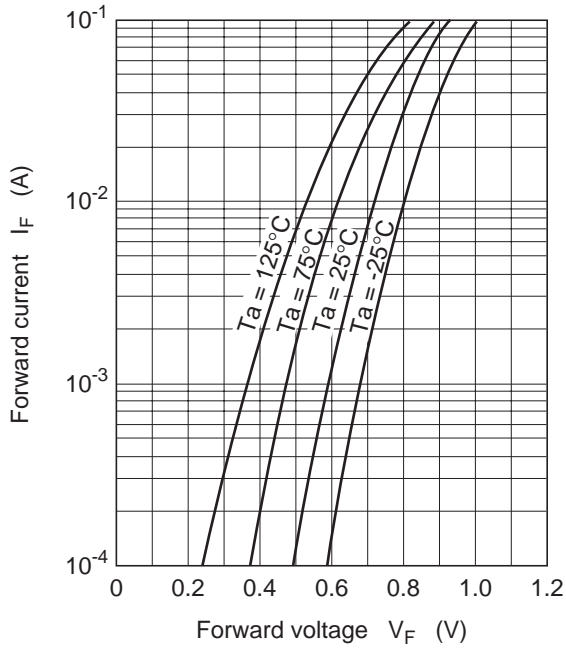


Fig.1 Forward current vs. Forward voltage

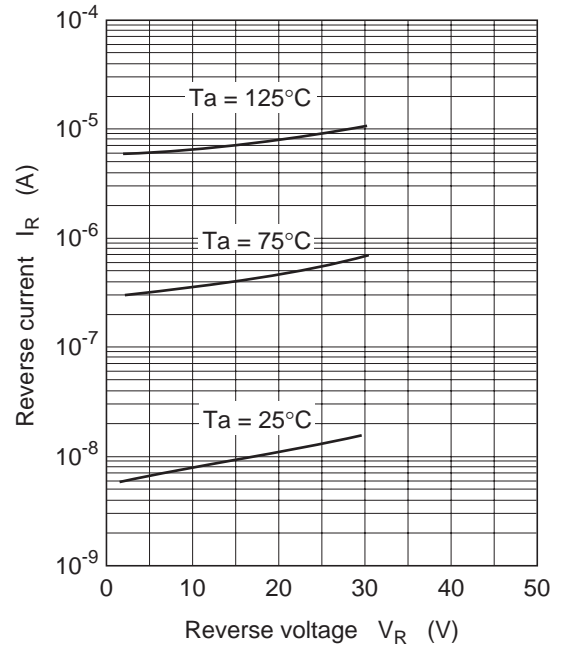


Fig.2 Reverse current vs. Reverse voltage

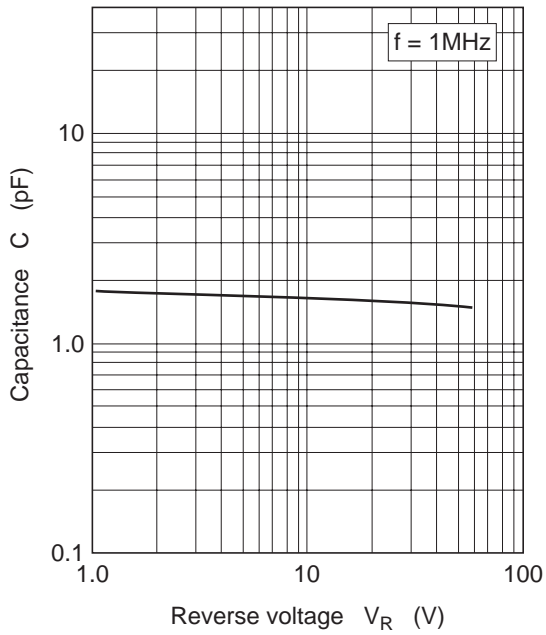


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
SC-40	GRZZ000ZZB-A	DO-35 / DO-35V	0.13g

The diagram shows a side view of a DO-35 package. It consists of a central cylindrical body with a diameter of ϕD and a length of E . This central body is flanked by two leads, each with a length of L and a diameter of ϕb . The leads are shown with break symbols to indicate they are longer than drawn. Dimension lines with arrows indicate the extent of each parameter.

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

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