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April 1st, 2010
Renesas Electronics Corporation

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

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Not recommended
for new design

RENESAS

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1S2076

Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0559-0300
 (Previous: ADE-208-145B)
 Rev.3.00
 Mar 16, 2005

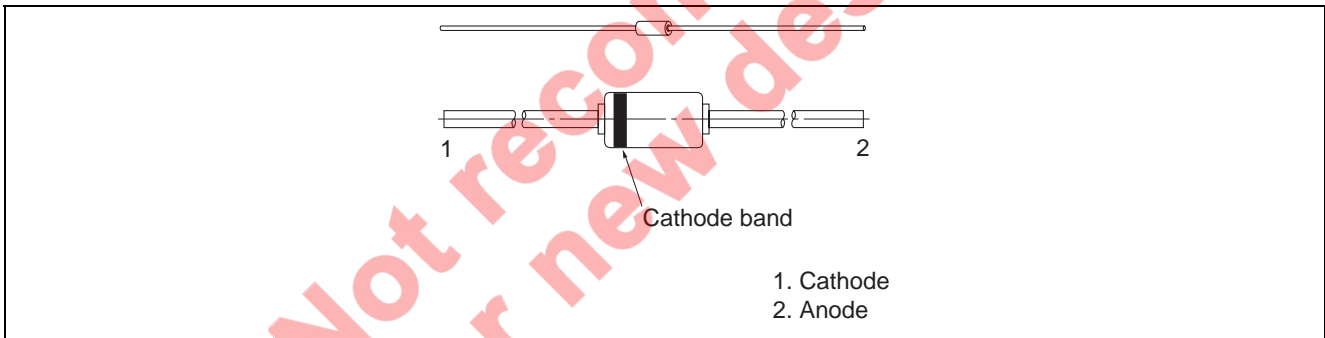
Features

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

Ordering Information

| Type No. | Cathode band | Package Name | Package Code (Previous Code) |
|----------|--------------|--------------|------------------------------|
| 1S2076 | Light Blue | 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}^* | 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 |

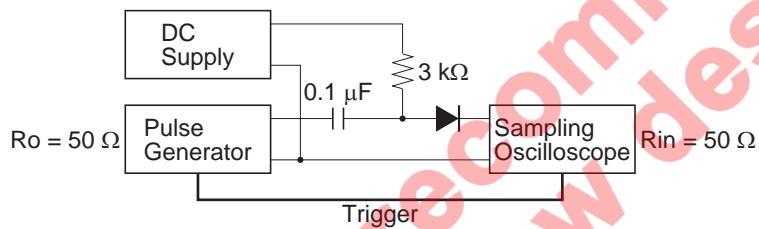
Note: Within 1s forward surge current.

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 | — | — | 100 | nA | $V_R = 30 \text{ V}$ |
| 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

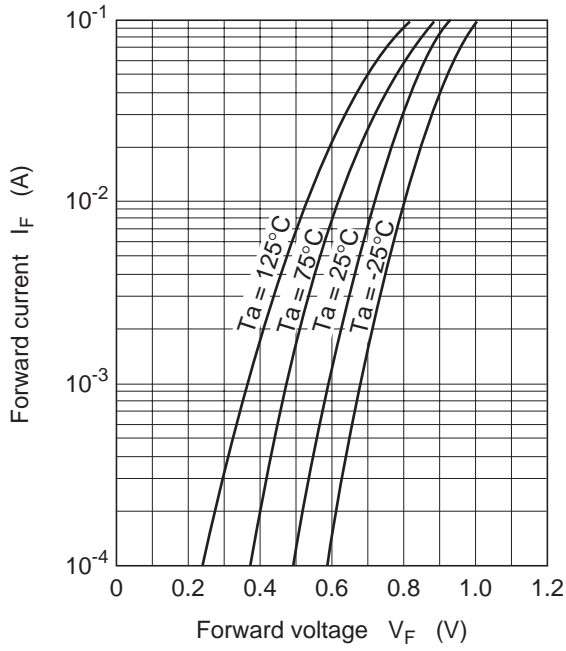


Fig.1 Forward current vs. Forward voltage

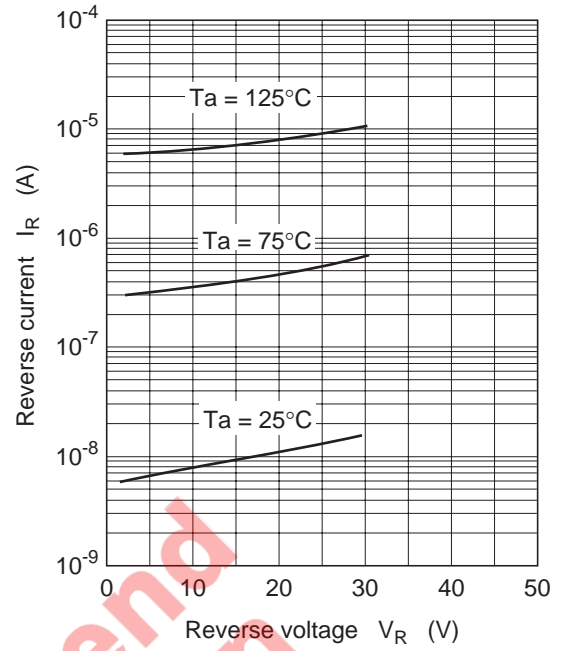


Fig.2 Reverse current vs. Reverse voltage

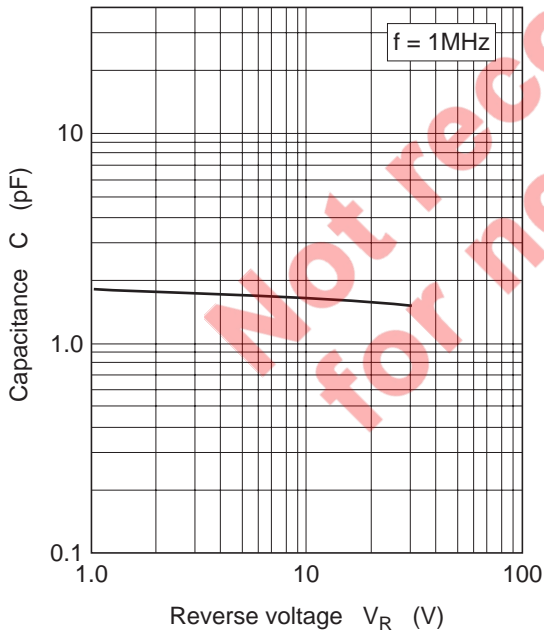
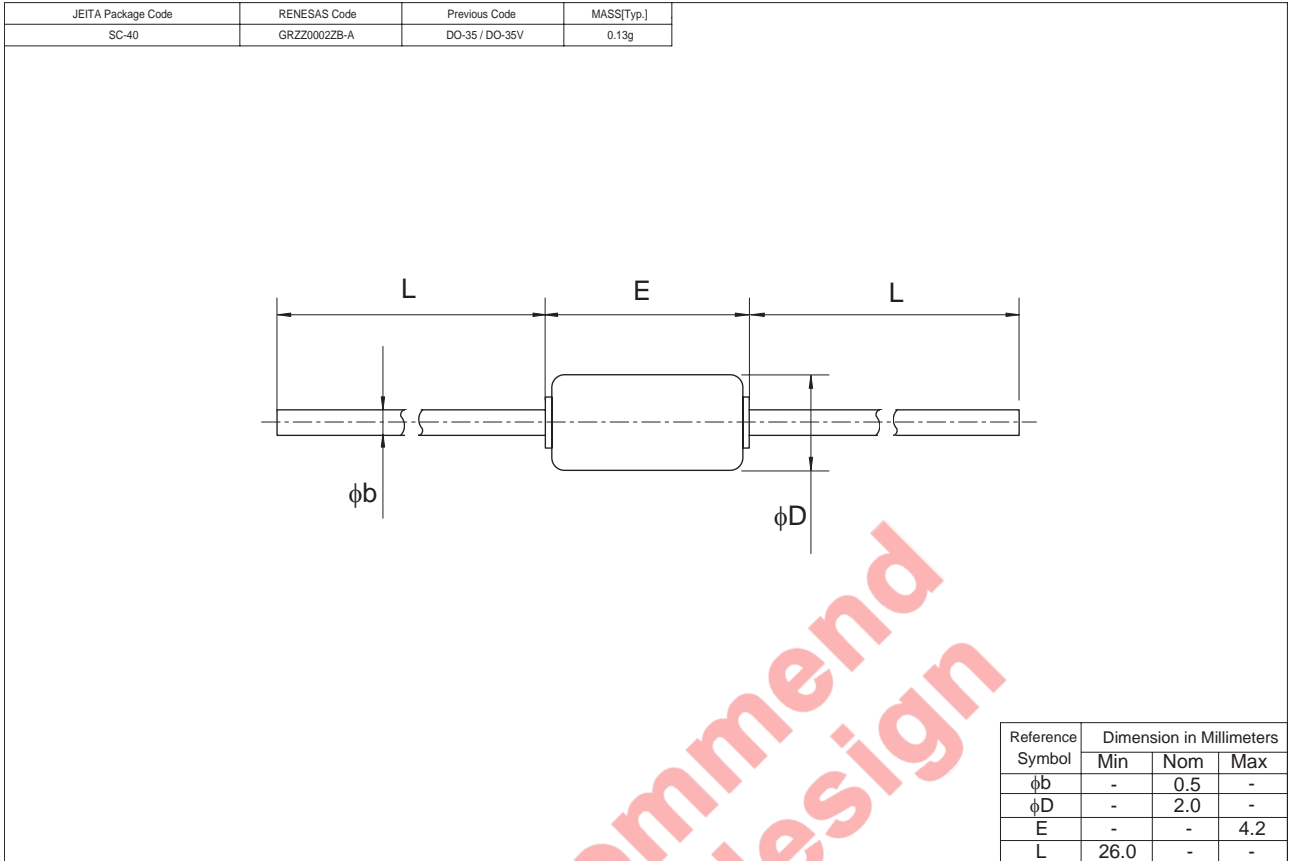


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



Not recommend for new design

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