

1SS83

Silicon Epitaxial Planar Diode for High Voltage Switching

REJ03G0563-0300
(Previous: ADE-208-150B)
Rev.3.00
Apr 18, 2005

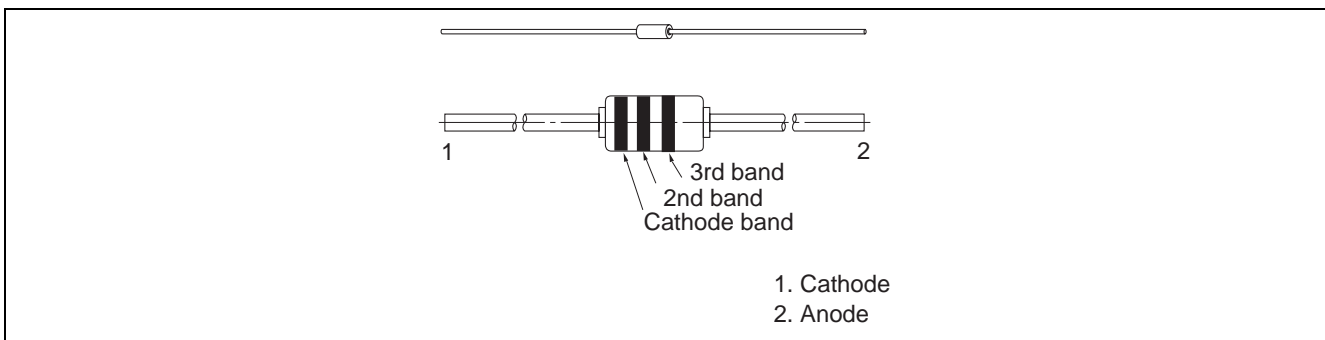
Features

- High reverse voltage. ($V_R = 250\text{ V}$)
- High reliability with glass seal.

Ordering Information

| Type No. | Cathode band | 2nd band | 3rd band | Package Name | Package Code (Previous Code) |
|----------|--------------|------------|------------|--------------|---------------------------------|
| 1SS83 | Verdure | Light Blue | 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}^{*1} | 300 | V |
| Reverse voltage | V_R | 250 | V |
| Average rectified current | I_O | 200 | mA |
| Peak forward current | I_{FM} | 625 | mA |
| Non-Repetitive peak forward surge current | I_{FSM}^{*2} | 1 | A |
| Power dissipation | P_d | 400 | mW |
| Junction temperature | T_j | 175 | °C |
| Storage temperature | T_{stg} | -65 to +175 | °C |

Notes: 1. Reverse voltage in excess of peak reverse voltage may deteriorate electrical characteristic.
 2. Within 1s forward surge current.

Electrical Characteristics

(Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|-----------------------|----------|-----|-----|-----|------|---|
| Reverse current | I_{R1} | — | — | 200 | nA | $V_R = 250\text{ V}$ |
| | I_{R2} | — | — | 100 | μA | $V_R = 300\text{ V}$ |
| Forward voltage | V_F | — | — | 1.0 | V | $I_F = 100\text{ mA}$ |
| Capacitance | C | — | 1.5 | — | pF | $V_R = 0\text{ V}, f = 1\text{ MHz}$ |
| Reverse recovery time | t_{rr} | — | — | 100 | ns | $I_F = I_R = 30\text{ mA}, I_{rr} = 3\text{ mA}, R_L = 100\ \Omega$ |

Main Characteristic

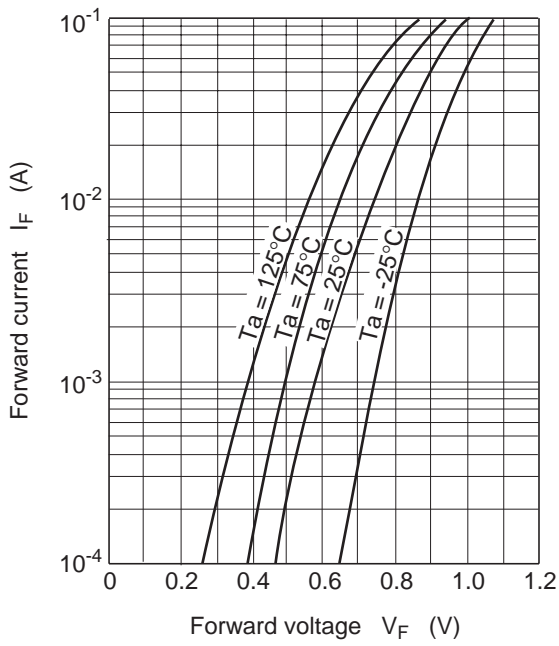


Fig.1 Forward current vs. Forward voltage

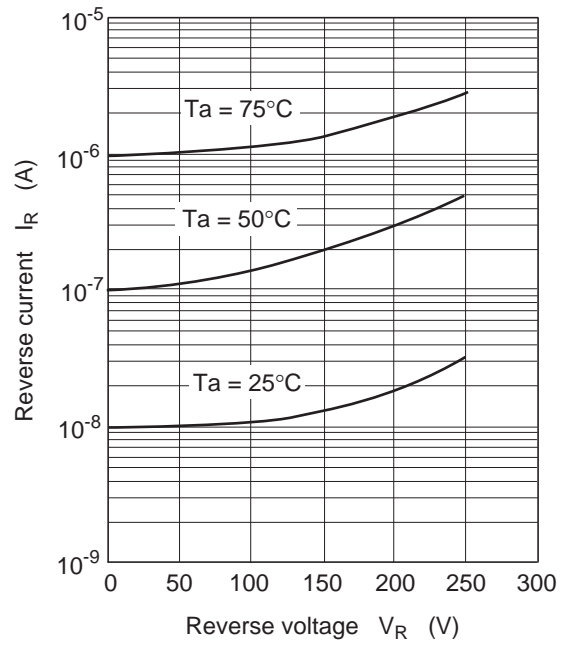


Fig.2 Reverse current vs. Reverse voltage

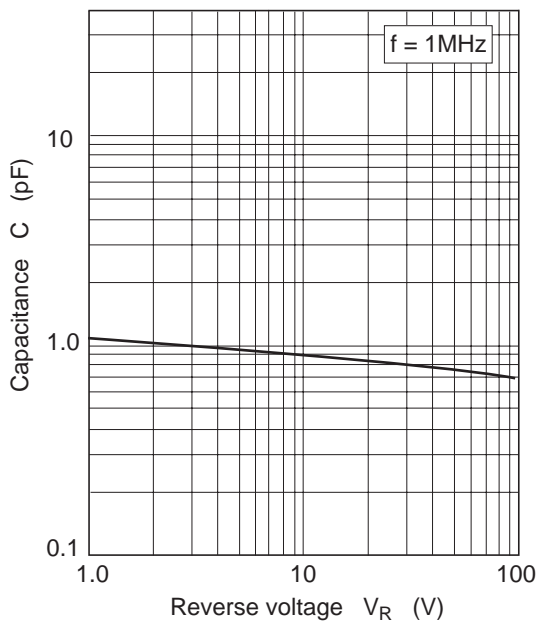
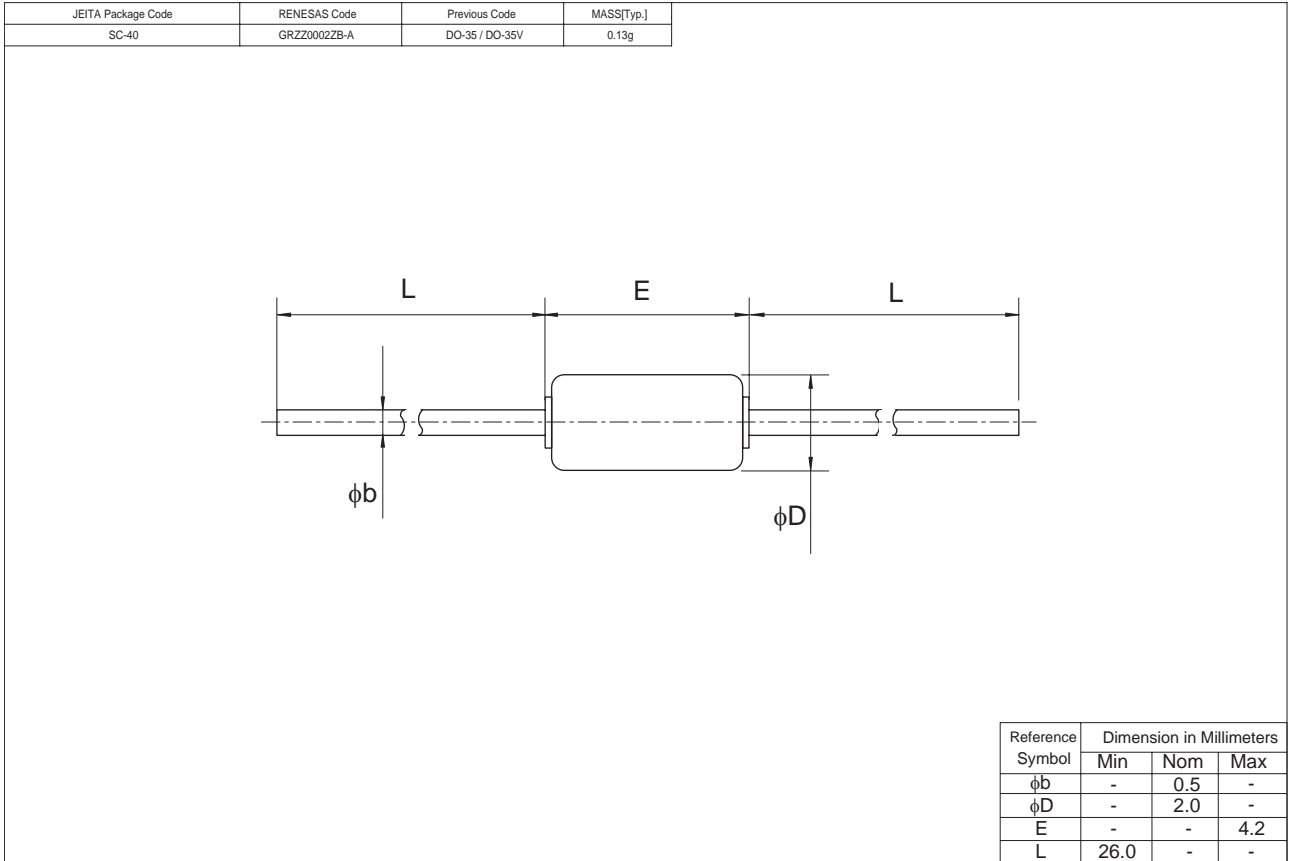


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



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