

1SS119

Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0564-0300
(Previous: ADE-208-180B)
Rev.3.00
Mar 23, 2005

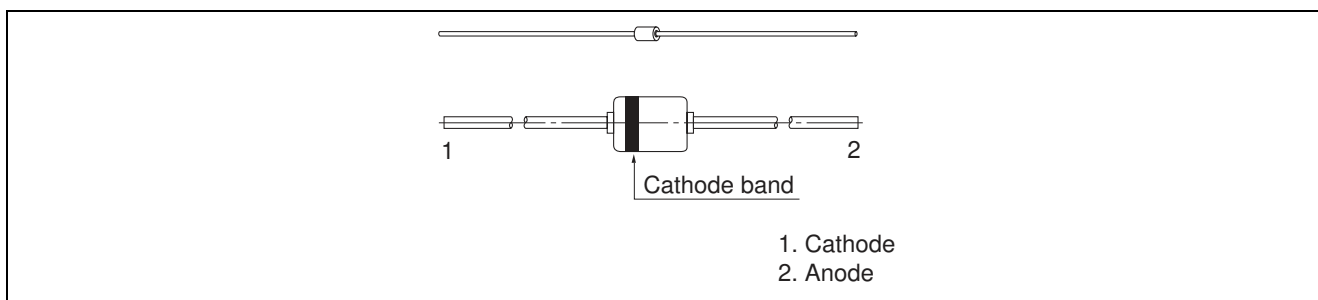
Features

- Low capacitance. ($C = 3.0 \text{ pF max}$)
- Short reverse recovery time. ($t_{rr} = 3.5 \text{ ns max}$)
- Small glass package (MHD) enables easy mounting and high reliability.

Ordering Information

| Type No. | Cathode band | Package Name | Package Code (Previous Code) |
|----------|--------------|--------------|---------------------------------|
| 1SS119 | Light Blue | MHD | GRZZ0002ZC-A (MHD) |

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 |
| Average rectified current | I_O | 150 | mA |
| Peak forward current | I_{FM} | 450 | mA |
| Non-Repetitive peak forward surge current | I_{FSM}^* | 1 | A |
| Power dissipation | P_d | 250 | mW |
| Junction temperature | T_j | 175 | °C |
| Storage temperature | T_{stg} | -65 to +175 | °C |

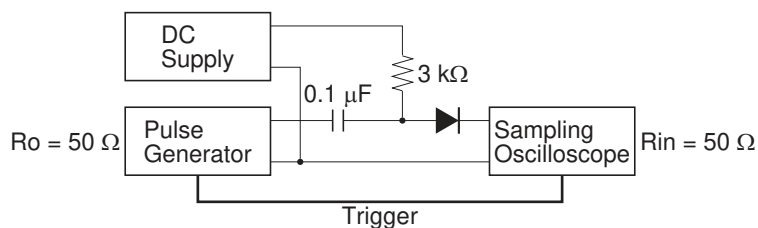
Note: Within 1s forward surge current.

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 | — | — | 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}^* | — | — | 3.5 | ns | $I_F = 10 \text{ mA}, V_R = 6 \text{ V}, R_L = 50 \Omega$ |

Note: Reverse recovery time test circuit



Main Characteristic

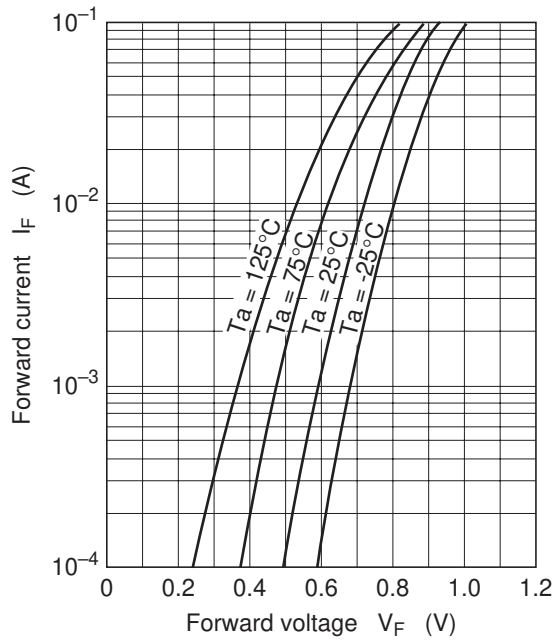


Fig.1 Forward current vs. Forward voltage

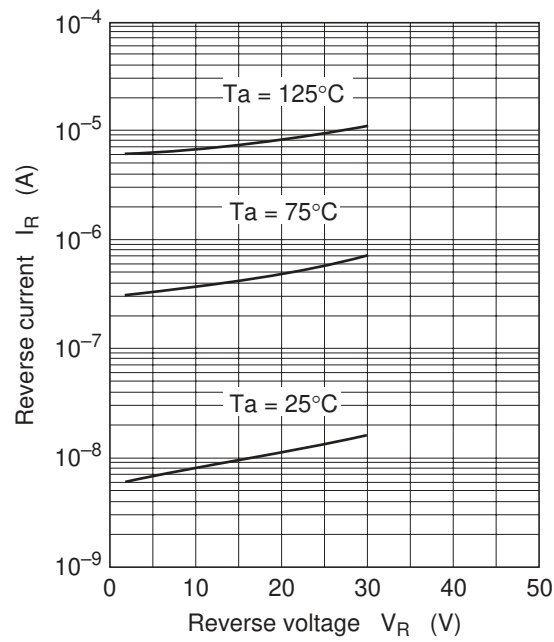


Fig.2 Reverse current vs. Reverse voltage

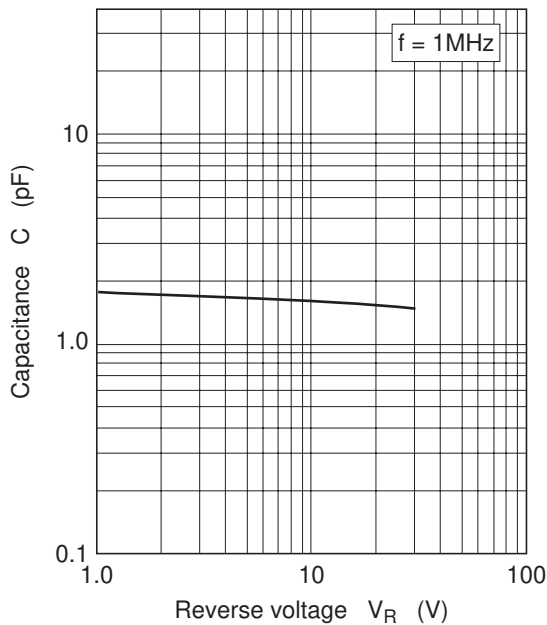
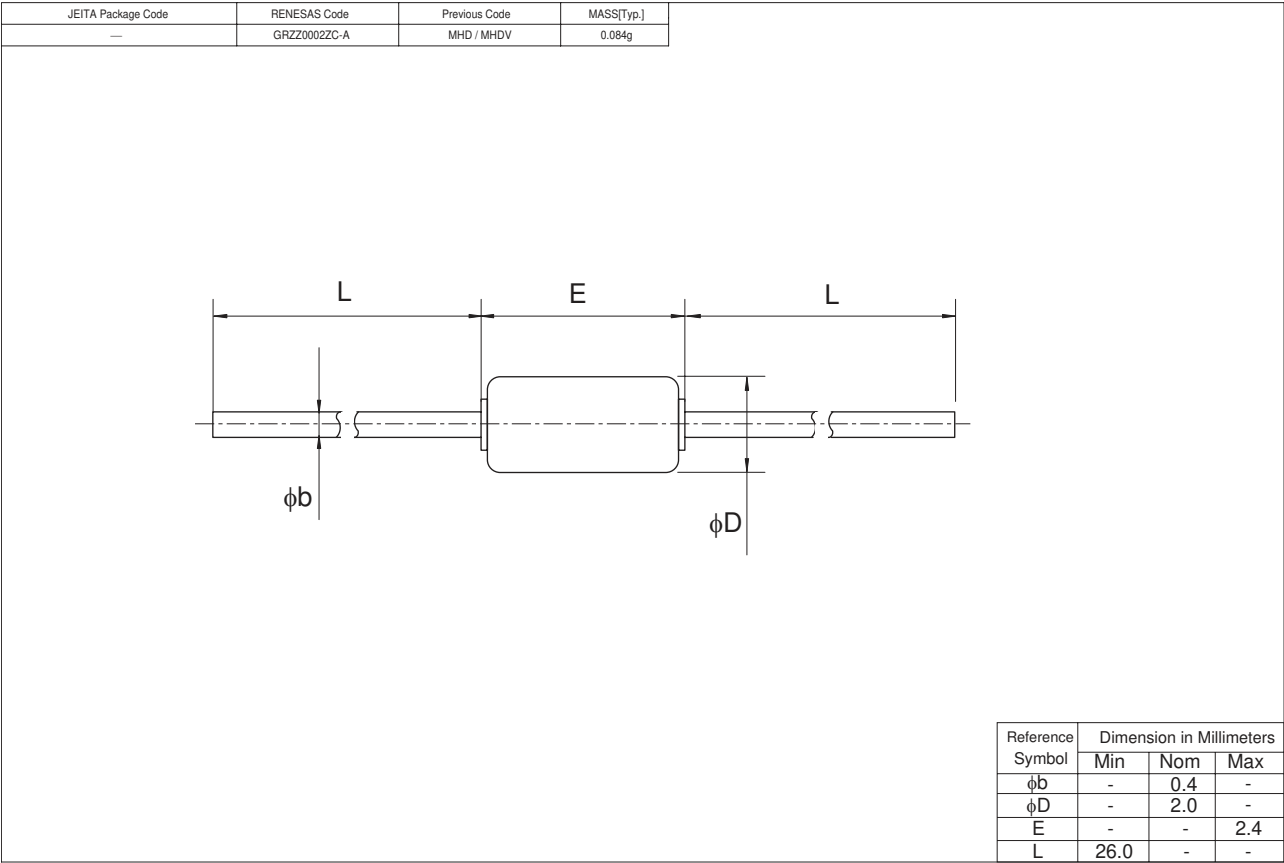


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



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