

1SS119

Silicon Epitaxial Planar Diode for High Speed Switching

HITACHI

ADE-208-180A (Z)

Rev. 1

Aug. 1995

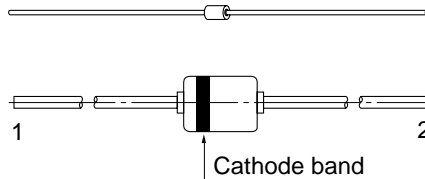
Features

- 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 Code |
|----------|--------------|--------------|
| 1SS119 | Light Blue | MHD |

Outline



1. Cathode
2. Anode

Absolute Maximum Ratings (Ta = 25°C)

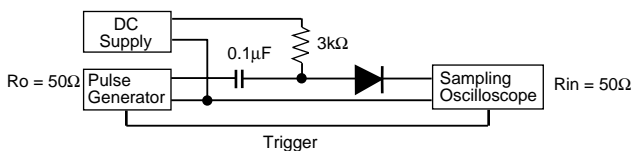
| Item | Symbol | Value | Unit |
|---|-------------|-------------|------|
| Peak reverse voltage | V_{RM} | 35 | V |
| Reverse voltage | V_R | 30 | V |
| Peak forward current | I_{FM} | 450 | mA |
| Non-Repetitive peak forward surge current | I_{FSM}^* | 1 | A |
| Average forward current | I_O | 150 | 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 | — | — | 0.8 | 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



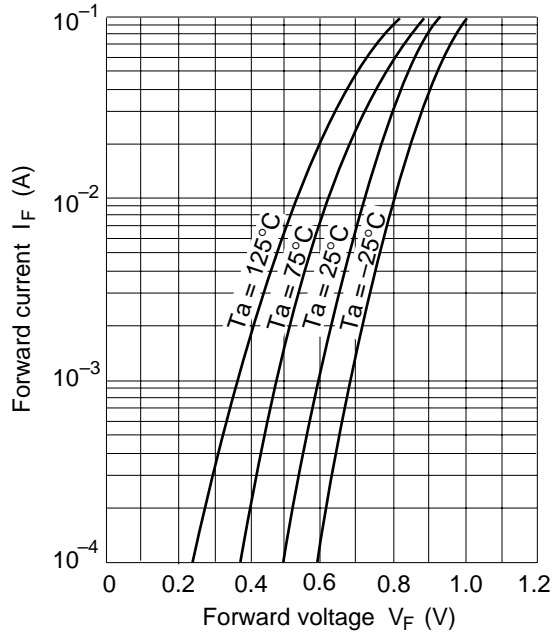


Fig.1 Forward current Vs. Forward voltage

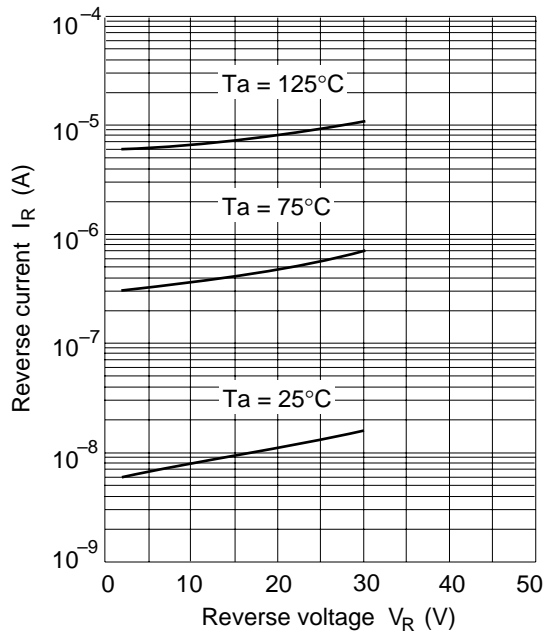


Fig.2 Reverse current Vs. Reverse voltage

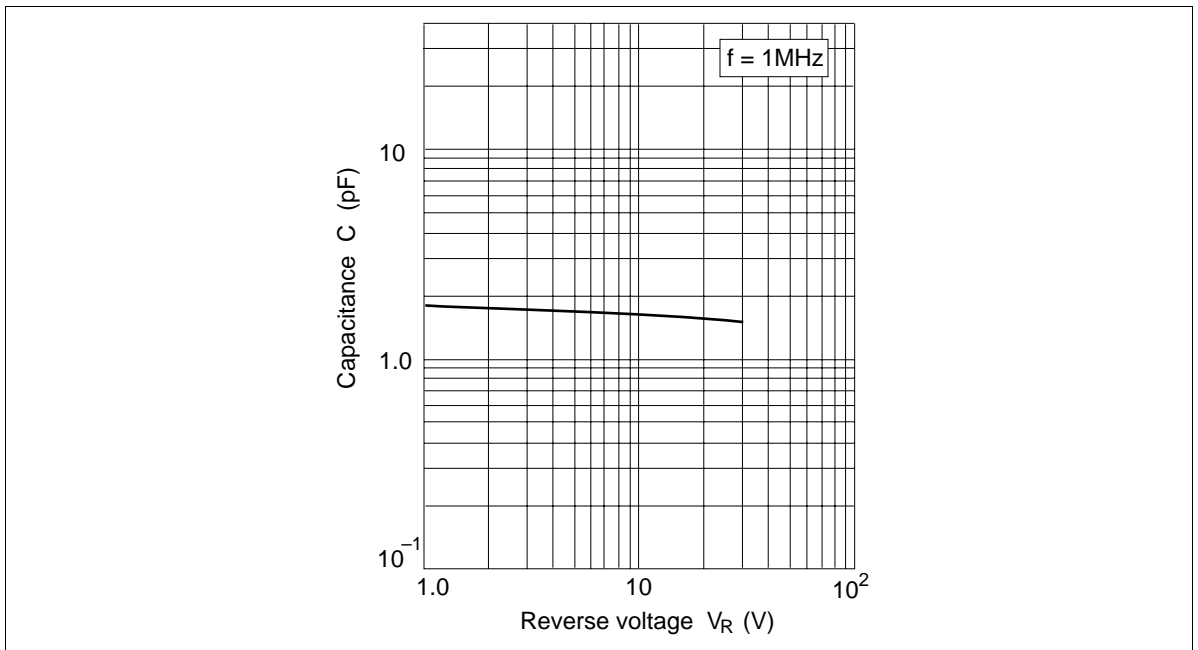
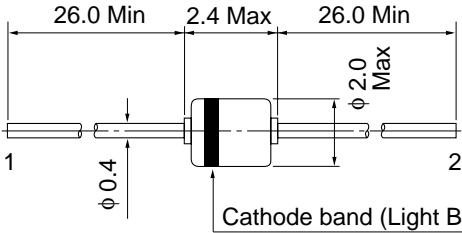


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



1 Cathode
2 Anode

| | |
|--------------|-------|
| HITACHI Code | MHD |
| JEDEC Code | DO-34 |
| EIAJ Code | — |
| Weight (g) | 0.084 |

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