

1SS120

Silicon Epitaxial Planar Diode for High Speed Switching

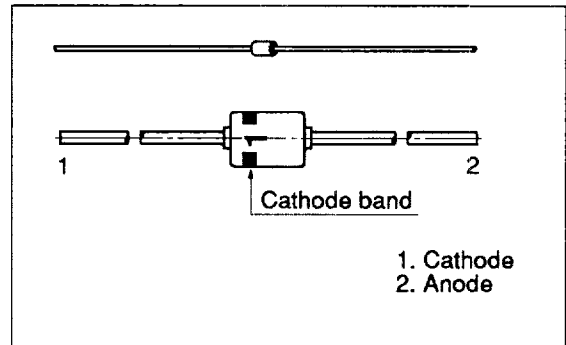
Features

- 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 | Mark | Package Code |
|----------|--------------|------|--------------|
| 1SS120 | Light Blue | 1 | MHD |

Outline



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

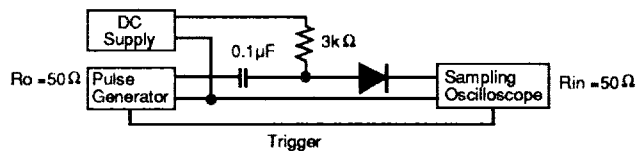
| Item | Symbol | Value | Unit |
|---|-------------|-------------|------------------|
| Peak reverse voltage | V_{RM} | 70 | V |
| Reverse voltage | V_R | 60 | V |
| Peak forward current | I_{FM} | 450 | mA |
| Non-Repetitive peak forward surge current | I_{FSM}^* | 1 | A |
| Average forward current | I_o | 150 | mA |
| Power dissipation | P_d | 250 | mW |
| Junction temperature | T_j | 175 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -65 to +175 | $^\circ\text{C}$ |

* Within 1s forward surge current.

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

| 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 | $V_R = 60\text{ V}$ |
| Capacitance | C | — | — | 3.0 | pF | $V_R = 1\text{ V}, f = 1\text{ MHz}$ |
| Reverse recovery time | t_{rr}^* | — | — | 3.5 | ns | $I_F=10\text{mA}, V_R=6\text{V}, R_L=50\Omega$ |

* Reverse recovery time test circuit



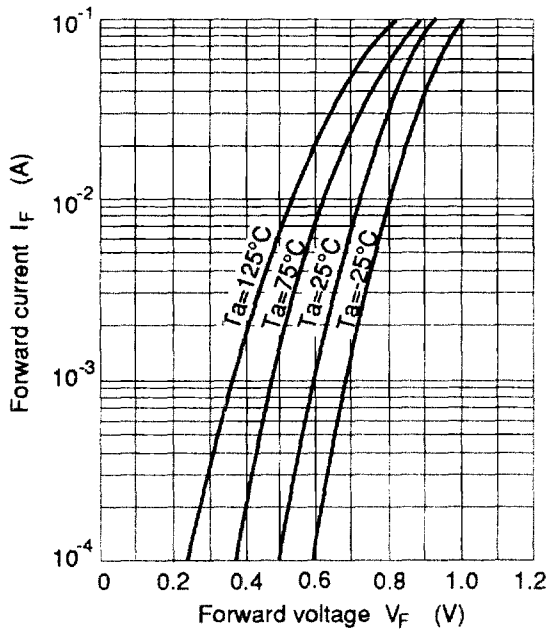


Fig.1 Forward current Vs. Forward voltage

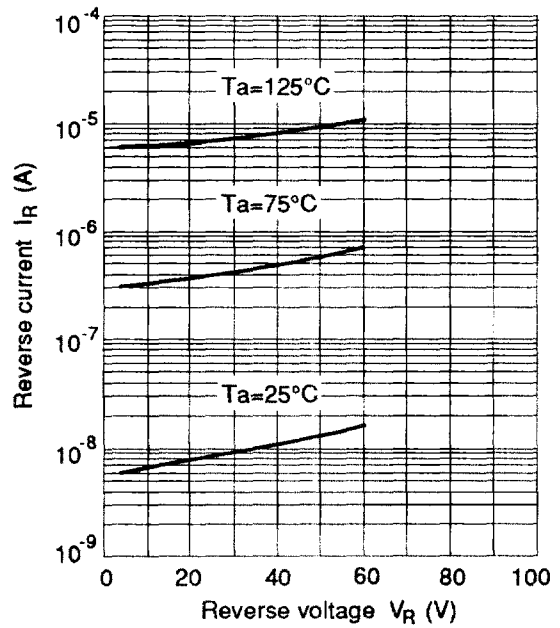


Fig.2 Reverse current Vs. Reverse voltage

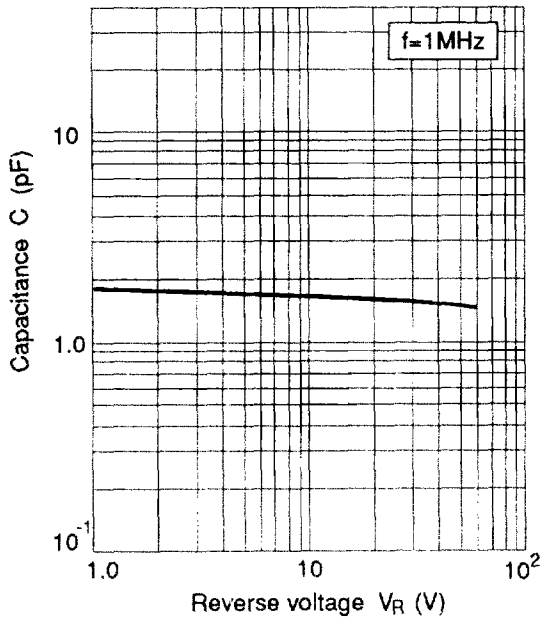


Fig.3 Capacitance Vs. Reverse voltage