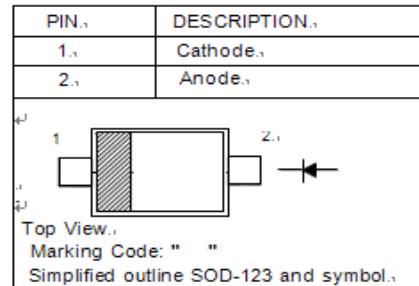


Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes

PINNING

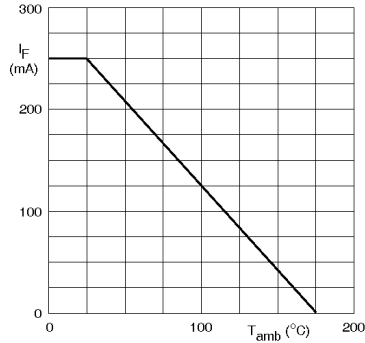


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|---|-----------|---------------|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 120 | V |
| | | 200 | |
| | | 250 | |
| Reverse Voltage | V_R | 100 | V |
| | | 150 | |
| | | 200 | |
| Continuous Forward Current | I_F | 250 | mA |
| Repetitive Peak Forward Current | I_{FRM} | 625 | mA |
| Non-repetitive Peak Forward Surge Current | I_{FSM} | 1 | A |
| at $t = 1\text{ s}$ | | 3 | |
| at $t = 100\text{ }\mu\text{s}$ | | 9 | |
| Total Power Dissipation | P_{tot} | 400 | mW |
| Junction Temperature | T_j | 175 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 65 to + 175 | $^\circ\text{C}$ |

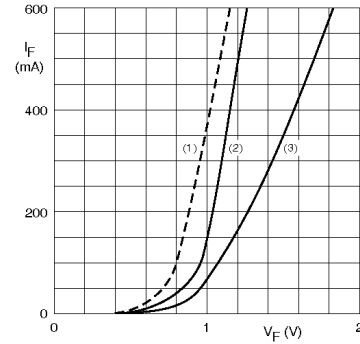
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter | Symbol | Max. | Unit |
|---|----------|------|---------------|
| Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$ | V_F | 1 | V |
| | | 1.25 | |
| Reverse Current | I_R | 100 | nA |
| at $V_R = 100\text{ V}$ | | 100 | nA |
| at $V_R = 150\text{ V}$ | | 100 | nA |
| at $V_R = 200\text{ V}$ | | 100 | μA |
| at $V_R = 100\text{ V}, T_j = 150\text{ }^\circ\text{C}$ | | 100 | μA |
| at $V_R = 150\text{ V}, T_j = 150\text{ }^\circ\text{C}$ | | 100 | μA |
| Diode Capacitance at $V_R = 0, f = 1\text{ MHz}$ | C_d | 5 | pF |
| Reverse Recovery Time at $I_F = I_R = 30\text{ mA}, I_{rr} = 3\text{ mA}, R_L = 100\text{ }\Omega$ | t_{rr} | 50 | ns |



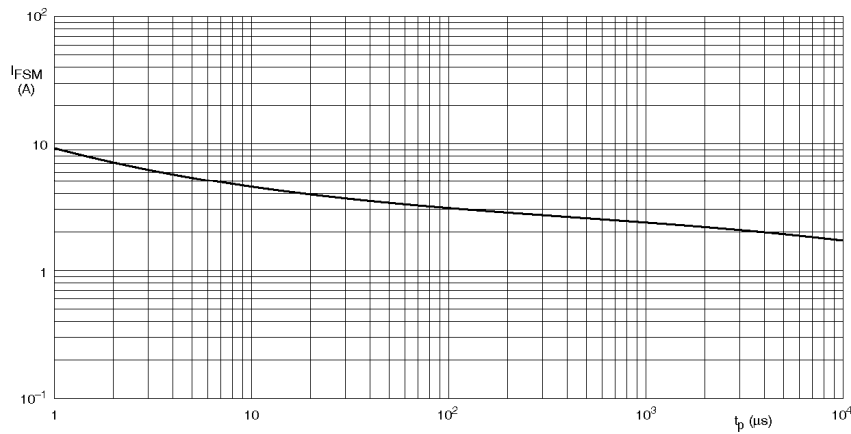
Device mounted on an FR4 printed-circuit board.

Maximum permissible continuous forward current as a function of ambient temperature.



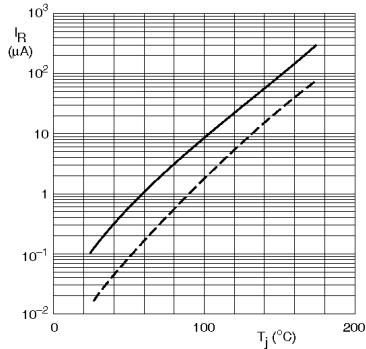
- (1) $T_J = 150\text{ }^\circ\text{C}$; typical values.
- (2) $T_\theta = 25\text{ }^\circ\text{C}$; typical values.
- (3) $T_\theta = 25\text{ }^\circ\text{C}$; maximum values.

Forward current as a function of forward voltage.



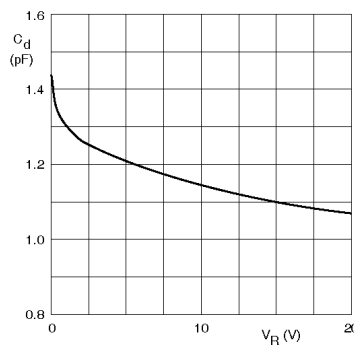
Based on square wave currents.
 $T_\theta = 25\text{ }^\circ\text{C}$ prior to surge.

Maximum permissible non-repetitive peak forward current as a function of pulse duration.



$V_R = V_{Rmax}$.
Solid line; maximum values.
Dotted line; typical values.

Reverse current as a function of junction temperature.



$f = 1\text{ MHz}$; $T_J = 25\text{ }^\circ\text{C}$.

Diode capacitance as a function of reverse voltage; typical values.