

HSM221C

Silicon Epitaxial Planar Diode for High Speed Switching

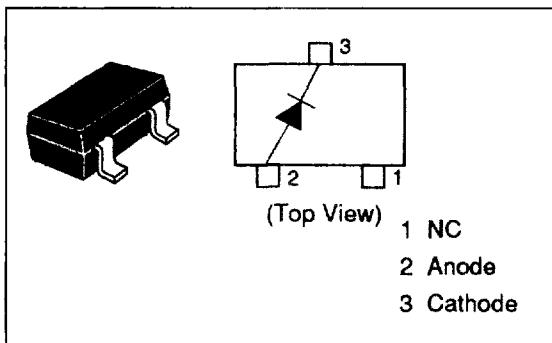
Features

- Low capacitance, proof against high voltage.
- Fast recovery time.
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HSM221C | A 2 | MPAK |

Pin Arrangement



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

| Item | Symbol | Value | Unit |
|---|-------------|-------------|------------------|
| Peak reverse voltage | V_{RM} | 85 | V |
| Reverse voltage | V_R | 80 | V |
| Peak forward current | I_{FM} | 300 | mA |
| Non-Repetitive peak forward surge current | I_{FSM}^* | 4 | A |
| Average forward current | I_o | 100 | mA |
| Junction temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +125 | $^\circ\text{C}$ |

* Within 1 μs forward surge current.

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

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|-----------------------|----------|-----|------|-----|---------------|---|
| Forward voltage | V_{F1} | — | 0.76 | 1.0 | V | $I_F = 10 \text{ mA}$ |
| | V_{F2} | — | 0.88 | 1.0 | | $I_F = 50 \text{ mA}$ |
| | V_{F3} | — | 0.97 | 1.2 | | $I_F = 100 \text{ mA}$ |
| Reverse current | I_R | — | — | 0.1 | μA | $V_R = 80 \text{ V}$ |
| Capacitance | C | — | 0.5 | 2.0 | pF | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$ |
| Reverse recovery time | t_{rr} | — | — | 3.0 | ns | $I_F = 10 \text{ mA}, V_R = 6 \text{ V}, R_L = 50 \Omega$ |

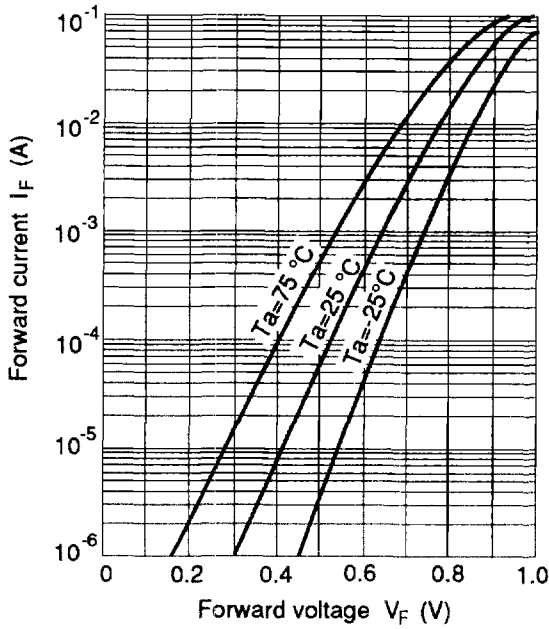


Fig.1 Forward current Vs. Forward voltage

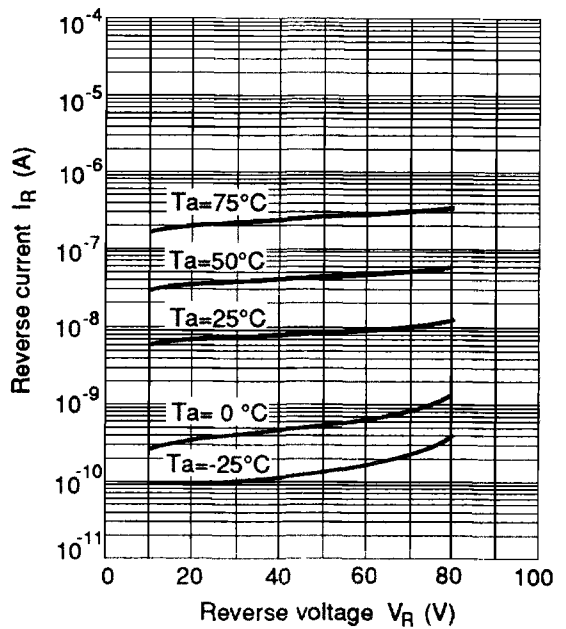


Fig.2 Reverse current Vs. Reverse voltage

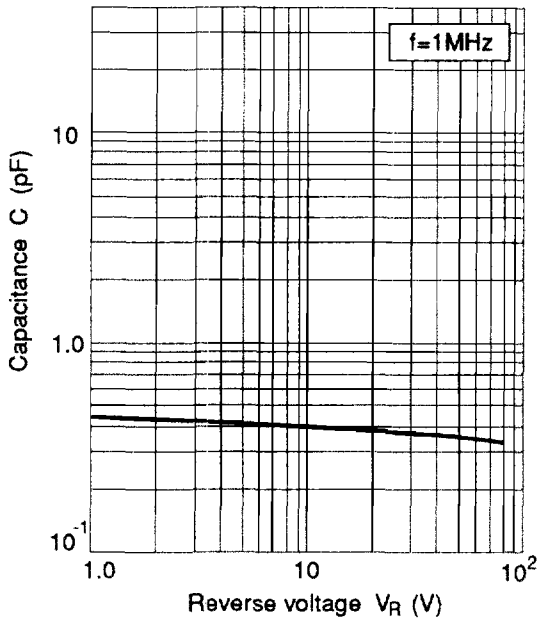


Fig.3 Capacitance Vs. Reverse voltage