

# HSM221C

## Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0552-0500  
(Previous: ADE-208-028D)  
Rev.5.00  
Mar 10, 2005

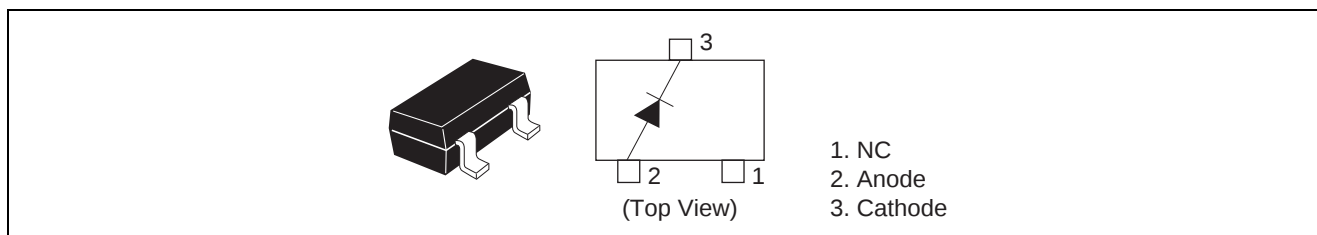
### Features

- 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 Name | Package Code<br>(Previous Code) |
|----------|------------|--------------|---------------------------------|
| HSM221C  | A2         | MPAK         | PLSP0003ZC-A<br>(MPAK)          |

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°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 | $I_{FSM}^{*1}$ | 4           | A    |
| Average rectified current                 | $I_O$          | 100         | mA   |
| Junction temperature                      | $T_J$          | 125         | °C   |
| Storage temperature                       | $T_{stg}$      | -55 to +125 | °C   |

Note: 1. Value at duration of 1  $\mu$ s.

## Electrical Characteristics

(Ta = 25°C)

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

## Main Characteristic

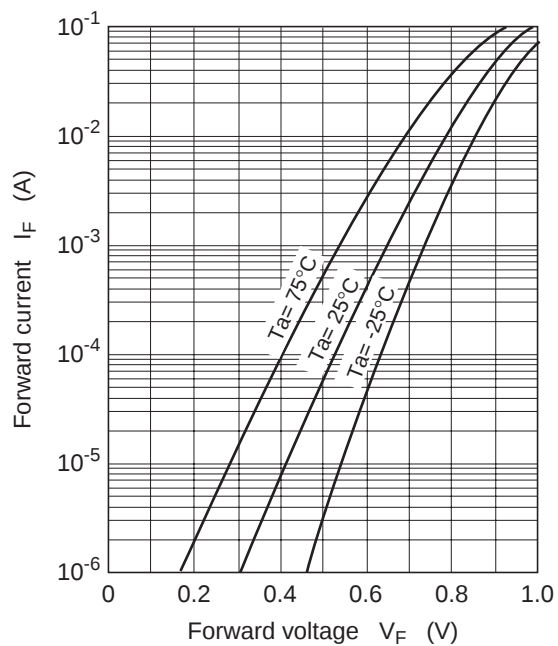


Fig.1 Forward current vs. Forward voltage

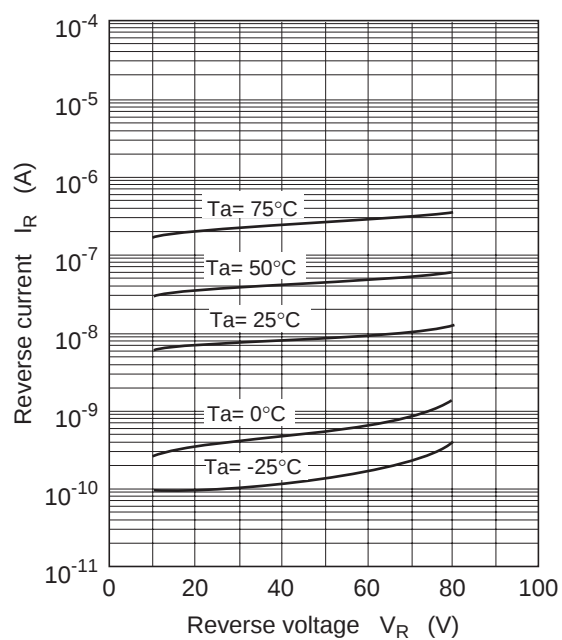


Fig.2 Reverse current vs. Reverse voltage

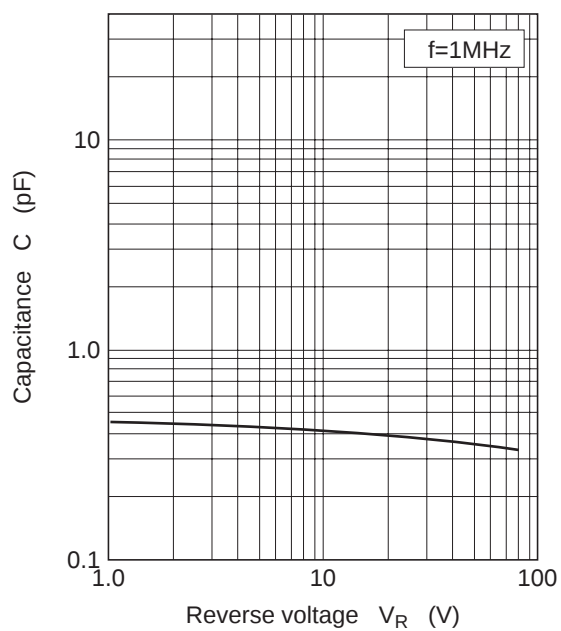
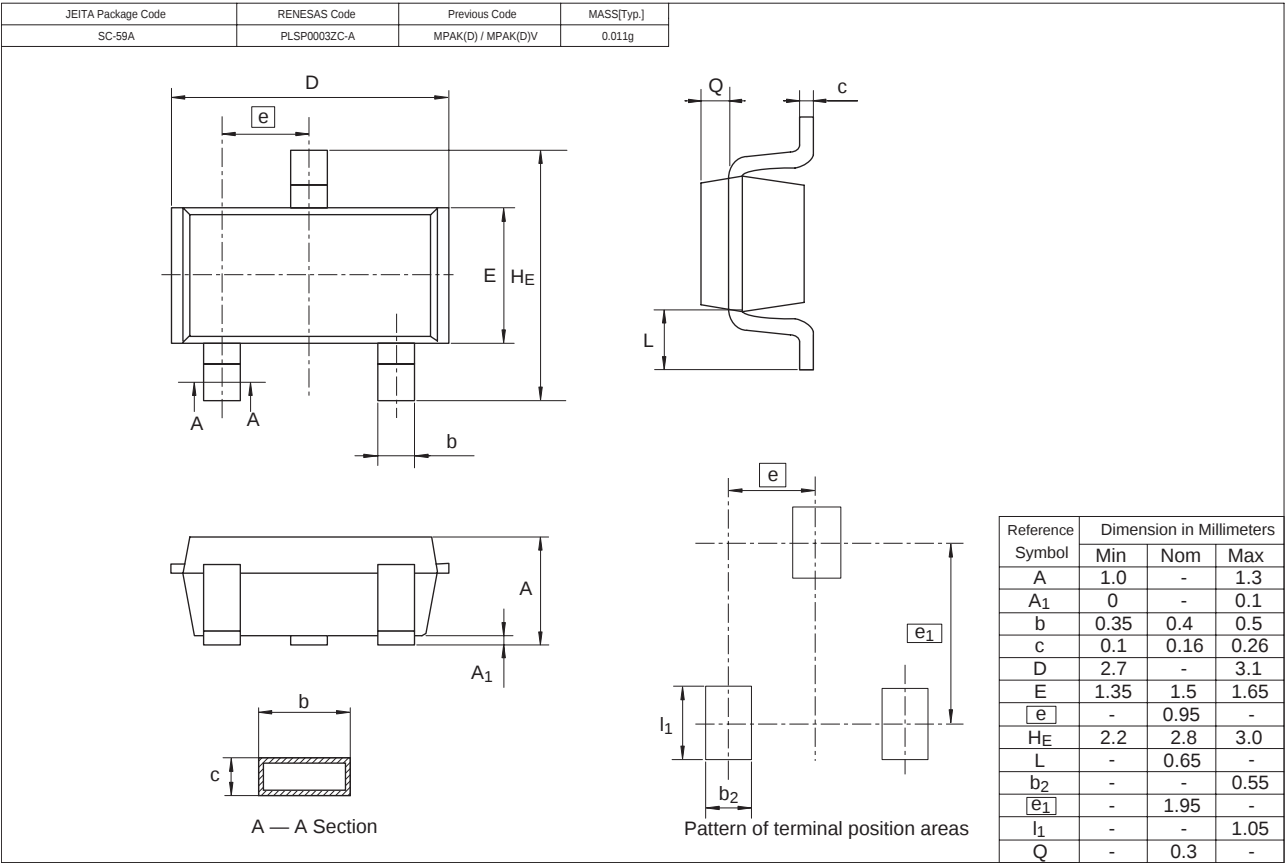


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



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