

# HSM2838C

## Silicon Epitaxial Planar Diode for High Speed Switching

# HITACHI

Rev. 2  
Aug. 1995

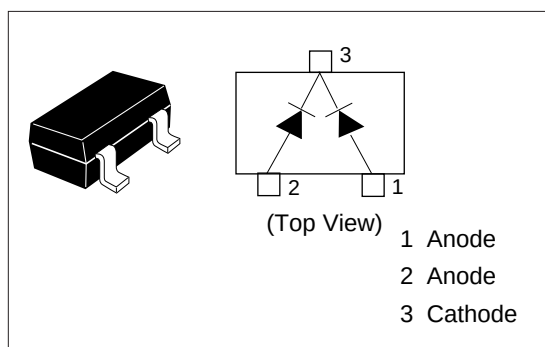
### Features

- Fast recovery time.
- MPAK package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

| Type No. | Laser Mark | Package |
|----------|------------|---------|
| HSM2838C | A 6        | 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 | $I_{FSM}^*$ | 4           | A    |
| Average forward current                   | $I_o$       | 100         | mA   |
| Junction temperature                      | $T_j$       | 125         | °C   |
| Storage temperature                       | $T_{stg}$   | -55 to +125 | °C   |

\* Within 1μs forward surge current.

\*\* Per one device

### Electrical Characteristics \* (Ta = 25°C)

| Item                  | Symbol   | Min | Typ  | Max | Unit | Test Condition                                            |
|-----------------------|----------|-----|------|-----|------|-----------------------------------------------------------|
| Forward voltage       | $V_{F1}$ | —   | 0.76 | 1.0 | V    | $I_F = 10 \text{ mA}$                                     |
|                       | $V_{F2}$ | —   | 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   | $I_F = 10 \text{ mA}, V_R = 6 \text{ V}, R_L = 50 \Omega$ |

\* Per one device

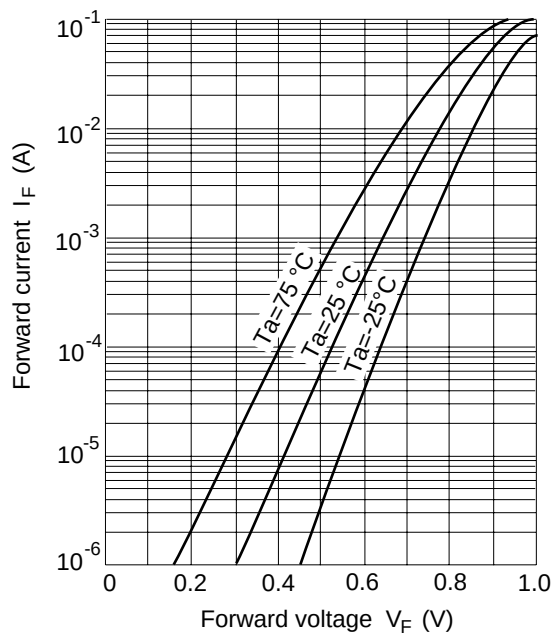


Fig.1 Forward current Vs. Forward voltage

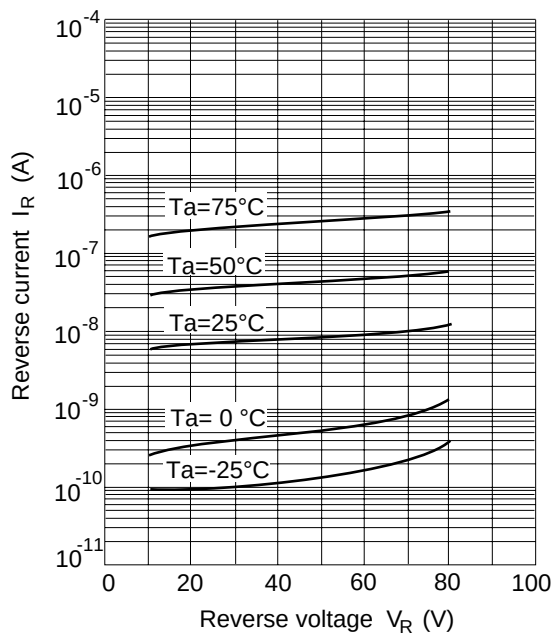


Fig.2 Reverse current Vs. Reverse voltage

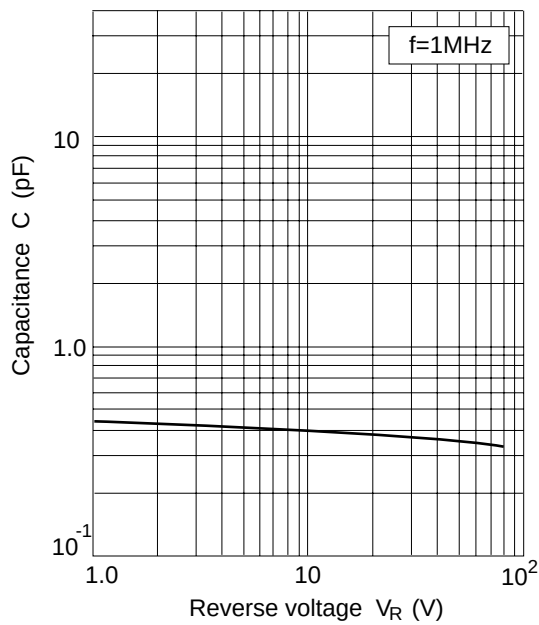
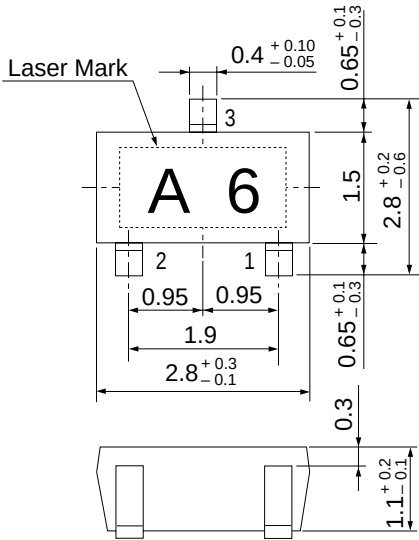


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



- 1 Anode
- 2 Anode
- 3 Cathode

|              |         |
|--------------|---------|
| HITACHI Code | MPAK(1) |
| JEDEC Code   | —       |
| EIAJ Code    | SC-59A  |
| Weight (g)   | 0.011   |