

HSU119

Silicon Epitaxial Planar Diode for High Speed Switching

HITACHI

ADE-208-444(Z)

Rev 0

Feb. 1997

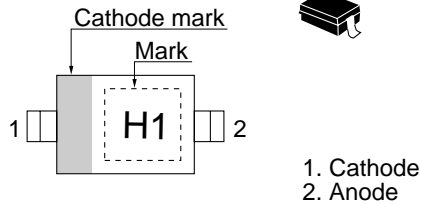
Features

- Low capacitance. ($C = 2.0\text{pF max}$)
- Short reverse recovery time. ($t_{rr} = 3.0\text{ns max}$)
- Ultra small Resin Package (URP) is suitable for high density surface mounting and high speed assembly.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HSU119 | H1 | URP |

Outline



Absolute Maximum Ratings (Ta = 25°C)

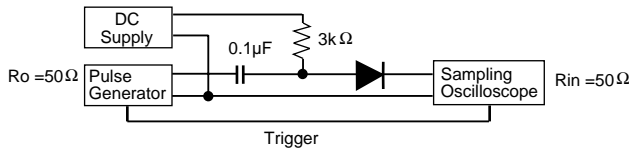
| Item | Symbol | Value | Unit |
|---|----------------|-------------|------|
| Peak reverse voltage | V_{RM} | 85 | V |
| Reverse voltage | V_R | 80 | V |
| Average forward current | I_O | 100 | mA |
| Peak rectified current | I_{FM} | 300 | mA |
| Non-Repetitive peak forward surge current | I_{FSM}^{*1} | 4 | A |
| Junction temperature | T_j | 125 | °C |
| Storage temperature | T_{stg} | -55 to +125 | °C |

Note: 1. Within 1μ s forward surge current.

Electrical Characteristics (Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|-------------------------------------|----------|-----|-----|-----|------|---|
| Forward voltage | V_{F1} | — | — | 0.8 | V | $I_F = 10 \text{ mA}$ |
| | V_{F2} | — | — | 1.2 | | $I_F = 100 \text{ mA}$ |
| Reverse current | I_R | — | — | 0.1 | μA | $V_R = 80 \text{ V}$ |
| Capacitance | C | — | — | 2.0 | pF | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$ |
| Reverse recovery time ^{*1} | t_{rr} | — | — | 3.0 | ns | $I_F = 10 \text{ mA}, V_R = 6 \text{ V}, R_L = 50 \Omega$ |

Note: 1. Reverse recovery time test circuit



Main Characteristic

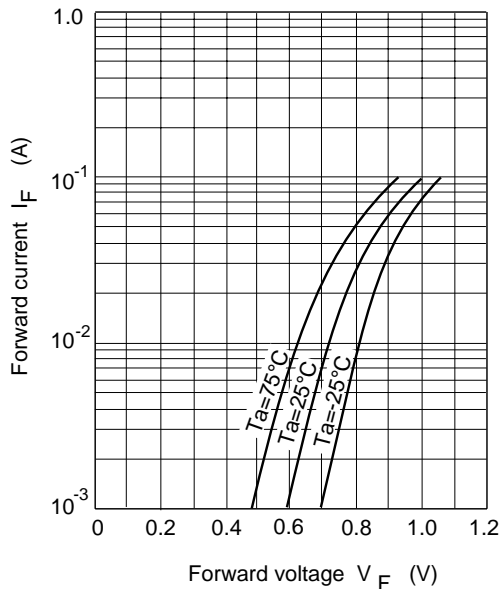


Fig.1 Forward current Vs. Forward voltage

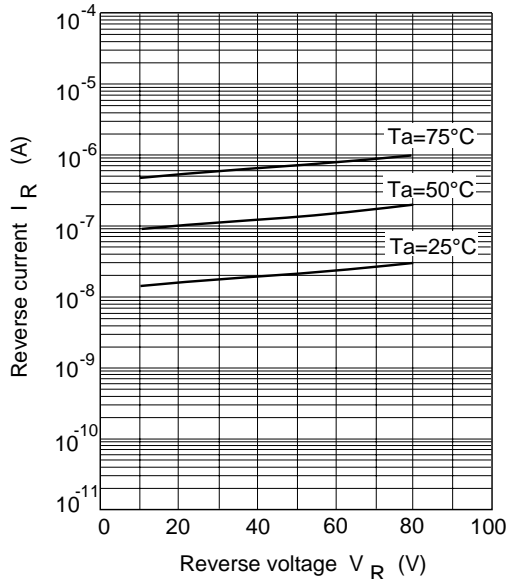


Fig.2 Reverse current Vs. Reverse voltage

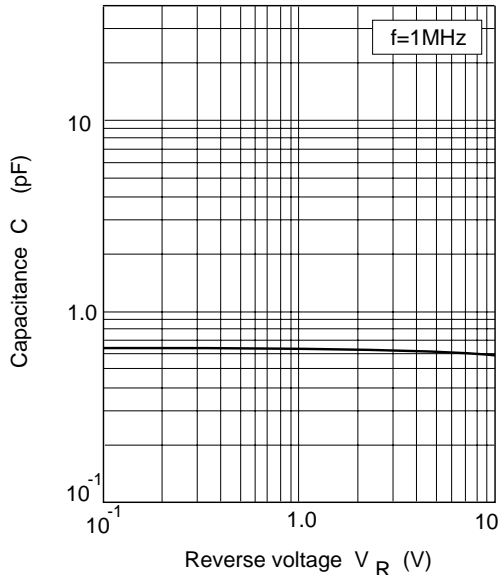
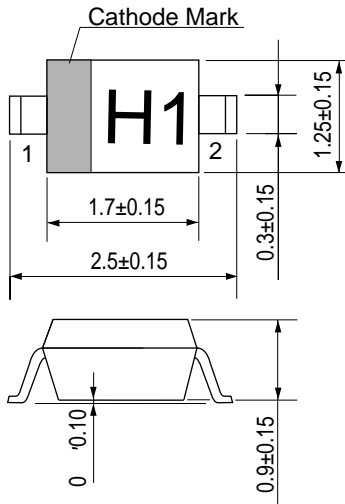


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit : mm



1. Cathode
2. Anode

| | |
|--------------|------------|
| Hitachi Code | <i>URP</i> |
| JEDECCode | — |
| EIAJCode | — |
| Weight(g) | 0.004 |

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