
HRF32

Silicon Schottky Barrier Diode for Rectifying

HITACHI

ADE-208-164D(Z)

Rev 4

Jul. 1997

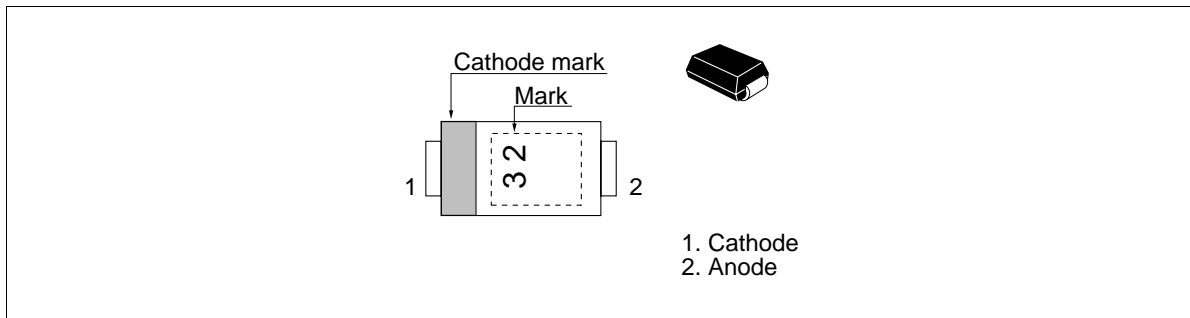
Features

- Good for high-frequency rectify.
- LRP structure ensures higher reliability.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HRF32 | 32 | LRP |

Outline



HRF32

Absolute Maximum Ratings (Ta = 25°C)

| Item | Symbol | Value | Unit |
|---|----------------|-------------|------|
| Repetitive peak reverse voltage | V_{RRM}^{*1} | 90 | V |
| Average rectified current | I_o^{*1} | 1.0 | A |
| Non-Repetitive peak forward surge current | I_{FSM}^{*2} | 20 | A |
| Junction temperature | Tj | 125 | °C |
| Storage temperature | Tstg | -40 to +125 | °C |

Note: 1. See from Fig.4 to Fig.7

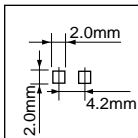
Note: 2. 10msec half sine wave 1 pulse

Electrical Characteristics (Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|--------------------|----------|-----|-----|-----|------|--|
| Forward voltage | V_F | — | — | 0.8 | V | $I_F = 1.0A$ |
| Reverse current | I_R | — | — | 1.0 | mA | $V_R = 90V$ |
| ESD-Capability | — | 150 | — | — | V | C=200pF, R=0Ω, Both forward and reverse direction 1 pulse. |
| Thermal resistance | Rth(j-a) | — | — | 108 | °C/W | Alumina board ^{*1} |
| | | — | — | 157 | | Print board ^{*2} |

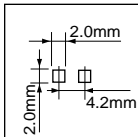
Note: 1. Alumina board

(25mm ~25mm ~0.64t)



Note: 2. Print board

(25mm ~25mm ~1.64t)



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Main Characteristic

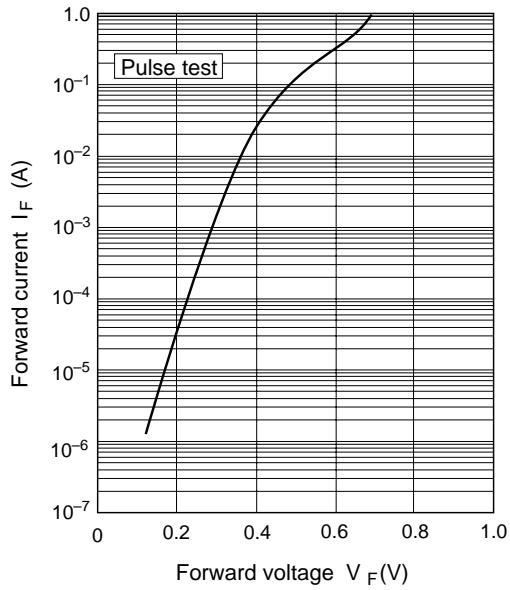


Fig.1 Forward current Vs. Forward voltage

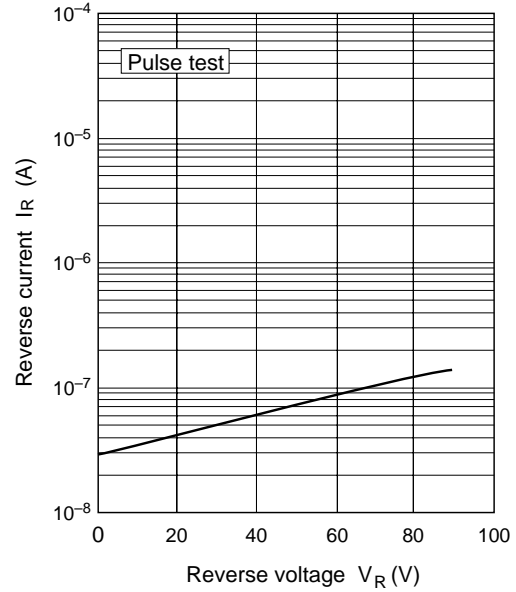


Fig.2 Reverse current Vs. Reverse voltage

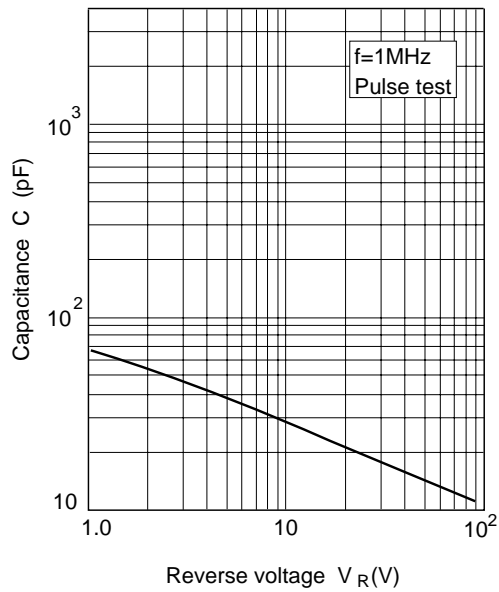


Fig.3 Capacitance Vs. Reverse voltage

Main Characteristic

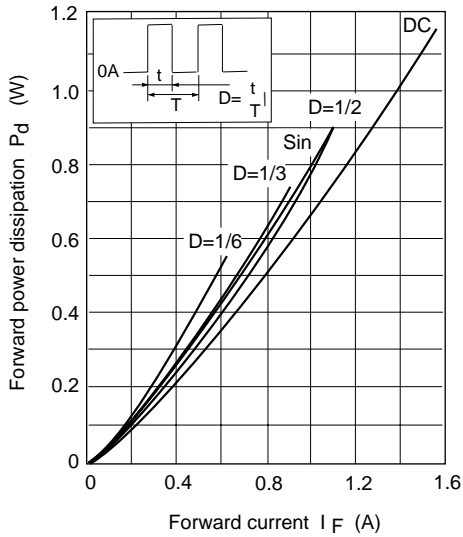


Fig.4 Forward power dissipation Vs. Forward current

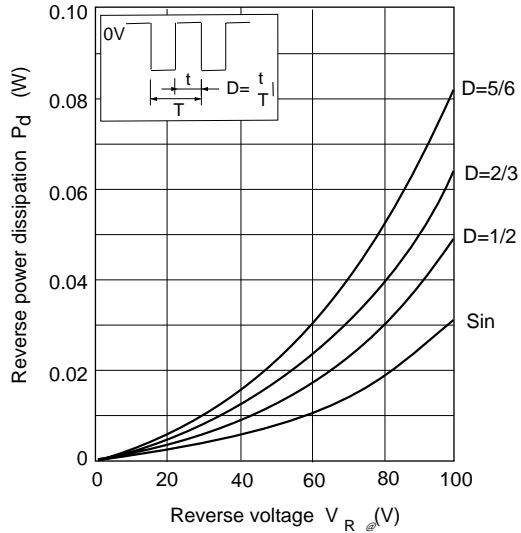


Fig.5 Reverse power dissipation Vs. Reverse voltage

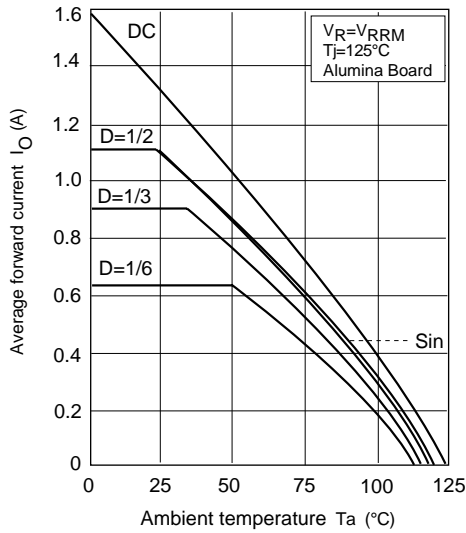


Fig.6 Average forward current Vs. Ambient temperature

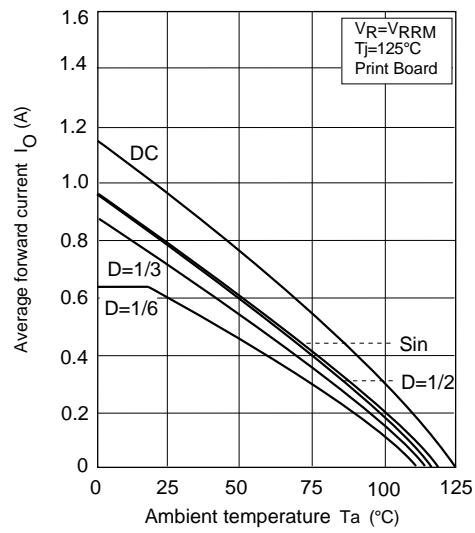
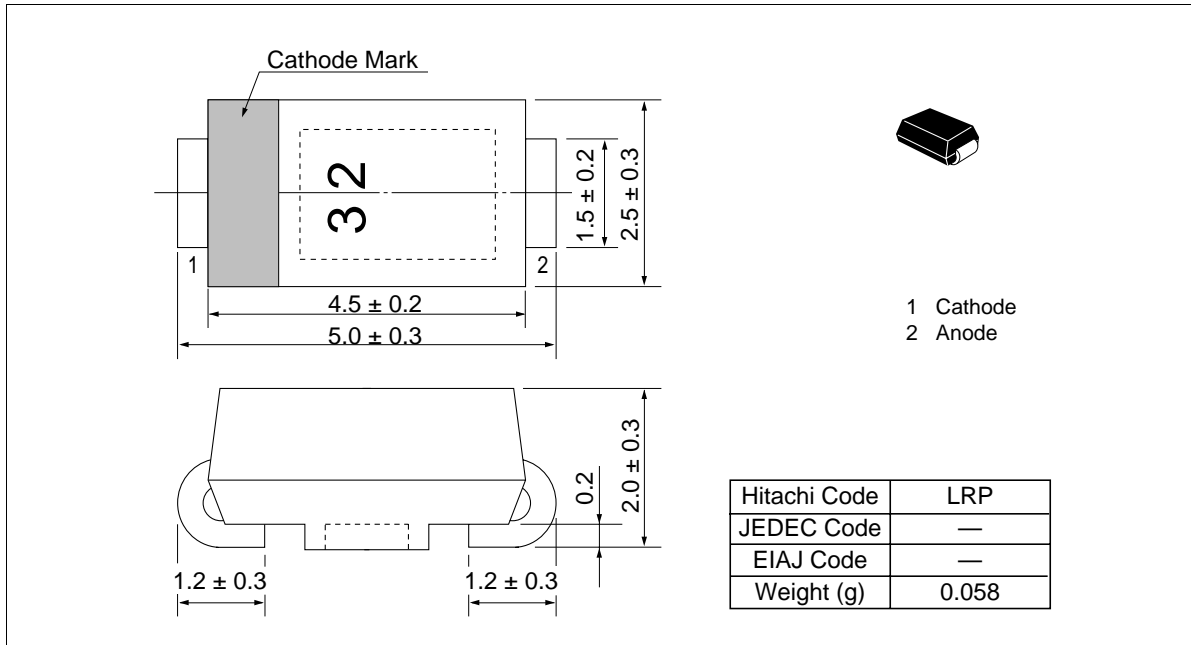


Fig.7 Average forward current Vs. Ambient temperature

Package Dimensions

Unit : mm



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