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# HRW1002A(S)

Silicon Schottky Barrier Diode for Rectifying

## HITACHI

ADE-208-207A (Z)

Rev. 1

Aug. 1994

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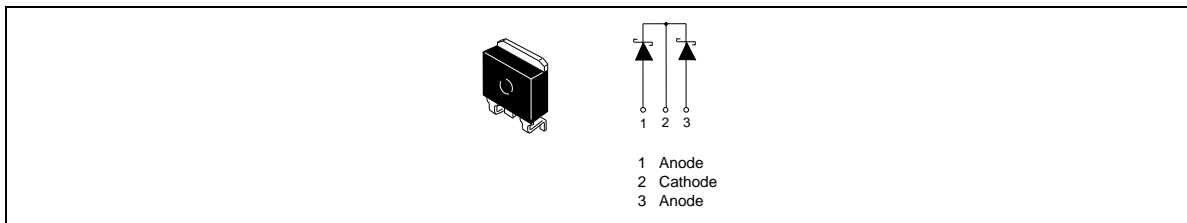
### Features

- Low forward voltage drop and suitable for high efficiency rectifying.
- Same power as TO-220AB.
- Small outline compared with TO-220AB.
- LDKPAK(S) package is suitable for high density surface mounting.

### Ordering Information

| Type No.    | Laser Mark | Package Code |
|-------------|------------|--------------|
| HRW1002A(S) | W1002A     | LDPAK(S)     |

### Pin Arrangement



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## HRW1002A(S)

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### Absolute Maximum Ratings (Ta = 25°C)\*<sup>1</sup>

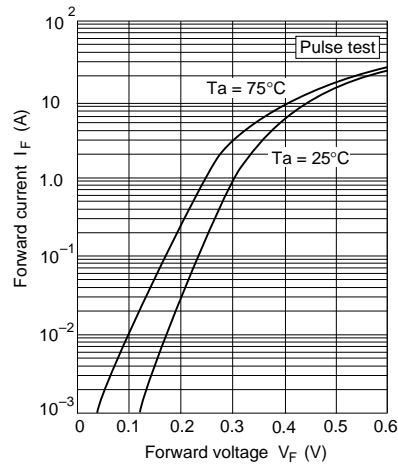
| Item                                      | Symbol         | Value       | Unit |
|---|----------------|-------------|------|
| Repetitive peak reverse voltage           | $V_{RRM}^{*2}$ | 20          | V    |
| Average forward current                   | $I_O^{*3}$     | 10          | A    |
| Non-Repetitive peak forward surge current | $I_{FSM}^{*4}$ | 75          | A    |
| Junction temperature                      | Tj             | 125         | °C   |
| Storage temperature                       | Tstg           | -40 to +125 | °C   |

Notes: 1. Per one device  
2. See Fig.5  
3. Square wave, Duty (1/2), Sum of two devices See Fig.4  
4. Sine wave 10msec

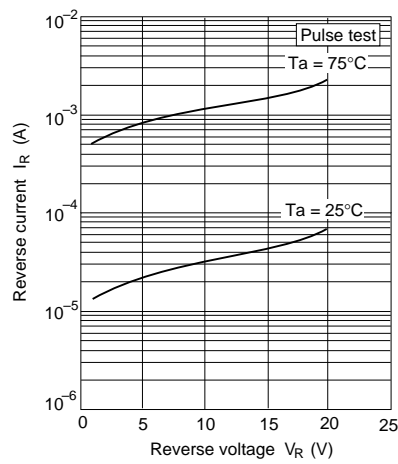
### Electrical Characteristics (Ta = 25°C)\*

| Item               | Symbol    | Min | Typ | Max  | Unit | Test Condition   |
|--------------------|-----------|-----|-----|------|------|--|
| Forward voltage    | $V_F$     | —   | —   | 0.42 | V    | $I_F = 5.0A$   |
| Reverse current    | $I_R$     | —   | —   | 1.0  | mA   | $V_R = 20V$  |
| ESD-capability     | —         | 500 | —   | —    | V    | C = 200pF<br>Both forward and reverse direction<br>1 pulse |
| Thermal resistance | Rth (j-c) | —   | 1.5 | —    | °C/W |  |

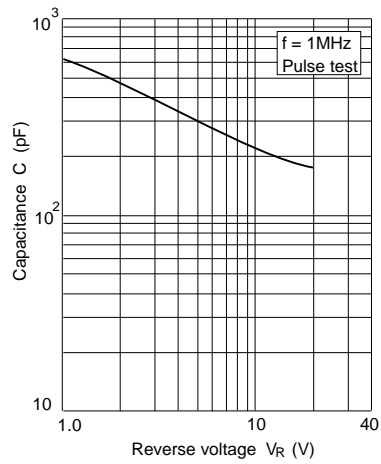
Note: Per one device



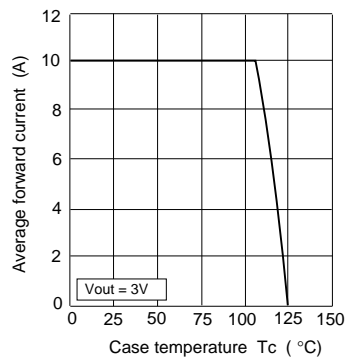
**Fig.1 Forward current Vs. Forward voltage**



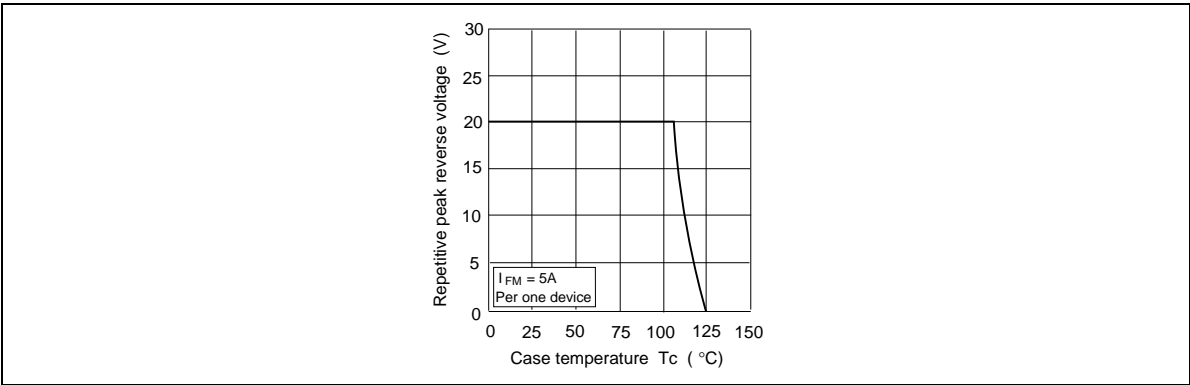
**Fig.2 Reverse current Vs. Reverse voltage**



**Fig.3 Capacitance Vs. Reverse voltage**



**Fig.4 Average forward current Vs. Case temperature**



**Fig.5 Repetitive peak reverse voltage Vs. Case temperature**

## Package Dimensions

