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# HSD276A

Silicon Schottky Barrier Diode for Detector

# HITACHI

ADE-208-1385 (Z)

Rev.0  
Jul. 2001

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## Features

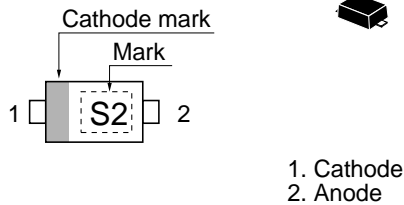
- High forward current, Low capacitance.
- Super small Flat Package (SFP) is suitable for surface mount design.

## Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HSD276A  | S2         | SFP          |

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## Outline



# HSD276A

## Absolute Maximum Ratings

( $T_a = 25^\circ\text{C}$ )

| Item                            | Symbol    | Value       | Unit             |
|---------------------------------|-----------|-------------|------------------|
| Repetitive peak reverse voltage | $V_{RRM}$ | 5           | V                |
| Reverse voltage                 | $V_R$     | 3           | V                |
| Average rectified current       | $I_O$     | 30          | mA               |
| Junction temperature            | $T_j$     | 125         | $^\circ\text{C}$ |
| Storage temperature             | $T_{stg}$ | -55 to +125 | $^\circ\text{C}$ |

## Electrical Characteristics

( $T_a = 25^\circ\text{C}$ )

| Item              | Symbol | Min | Typ | Max  | Unit          | Test Condition   |
|-------------------|--------|-----|-----|------|---------------|--|
| Reverse voltage   | $V_R$  | 3   | —   | —    | V             | $I_R = 1\text{ mA}$  |
| Reverse current   | $I_R$  | —   | —   | 50   | $\mu\text{A}$ | $V_R = 0.5\text{ V}$   |
| Forward current   | $I_F$  | 35  | —   | —    | mA            | $V_F = 0.5\text{ V}$   |
| Capacitance       | C      | —   | —   | 0.85 | pF            | $V_R = 0.5\text{ V}$ , $f = 1\text{ MHz}$  |
| ESD-Capability *1 | —      | 30  | —   | —    | V             | $C = 200\text{ pF}$ , $R = 0\ \Omega$ ,<br>Both forward and reverse direction 1 pulse. |

Notes: 1. Failure criterion ;  $I_R > 100\ \mu\text{A}$  at  $V_R = 0.5\text{ V}$

2. Please do not use the soldering iron due to avoid high stress to the SFP package.

Main Characteristic

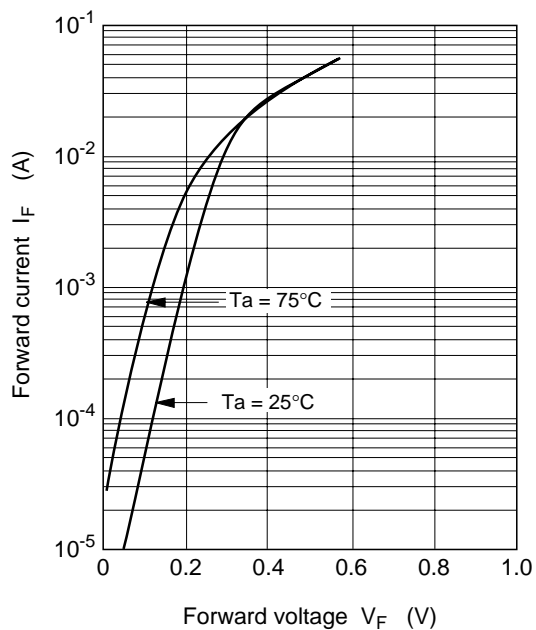


Fig.1 Forward current vs. Forward voltage

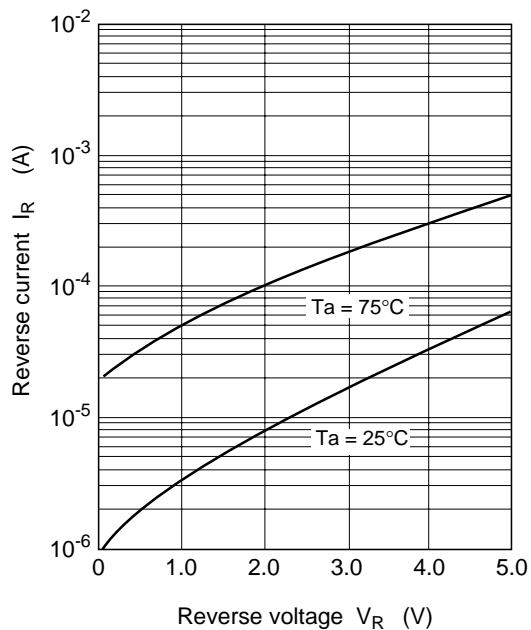


Fig.2 Reverse current vs. Reverse voltage

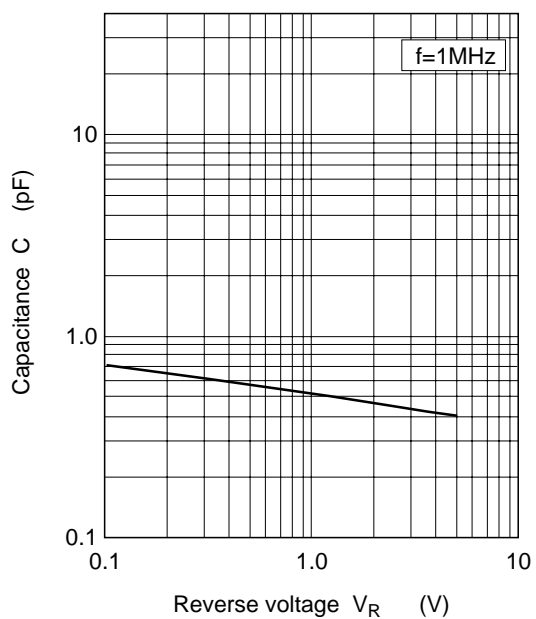
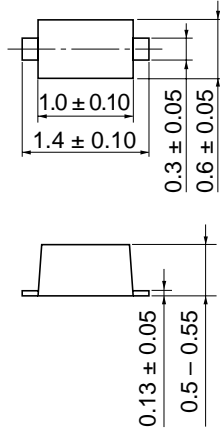


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

As of January, 2001  
Unit: mm



|                        |          |
|------------------------|----------|
| Hitachi Code           | SFP      |
| JEDEC                  | —        |
| EIAJ                   | —        |
| Mass (reference value) | 0.0010 g |

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