

# 1S2076

Silicon Epitaxial Planar Diode for Various Detector,  
Modulator, Demodulator

# HITACHI

ADE-208-145A (Z)

Rev. 1

Aug. 1995

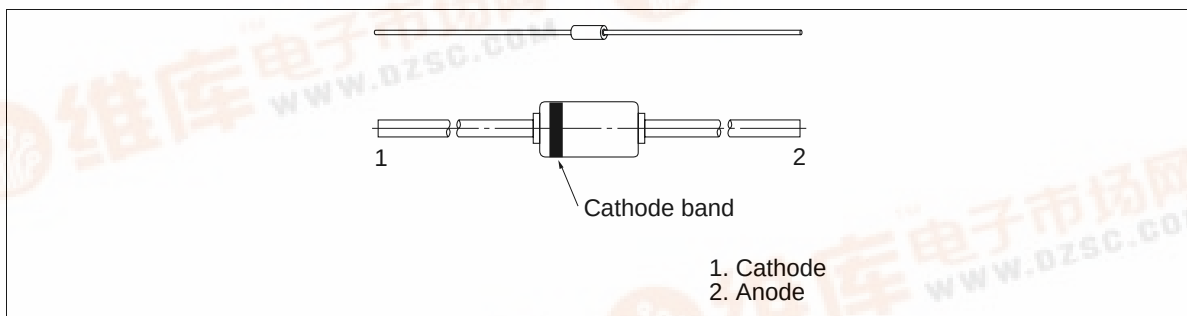
## Features

- Low capacitance. ( $C = 3.0\text{pF}$  max)
- Short reverse recovery time. ( $t_{rr} = 8.0\text{ns}$  max)
- High reliability with glass seal.

## Ordering Information

| Type No. | Cathode band | Package Code |
|----------|--------------|--------------|
| 1S2076   | Light Blue   | DO-35        |

## Outline



## 1S2076

### Absolute Maximum Ratings (Ta = 25°C)

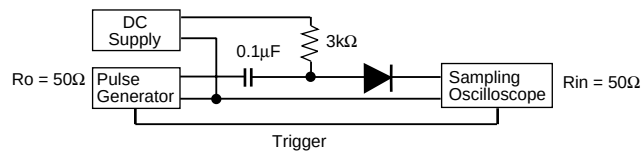
| Item                                      | Symbol      | Value       | Unit |
|-------------------------------------------|-------------|-------------|------|
| Peak reverse voltage                      | $V_{RM}$    | 35          | V    |
| Reverse voltage                           | $V_R$       | 30          | V    |
| Peak forward current                      | $I_{FM}$    | 450         | mA   |
| Non-Repetitive peak forward surge current | $I_{FSM}^*$ | 1           | A    |
| Average forward current                   | $I_O$       | 150         | mA   |
| Power dissipation                         | $P_d$       | 250         | mW   |
| Junction temperature                      | $T_j$       | 175         | °C   |
| Storage temperature                       | $T_{stg}$   | -65 to +175 | °C   |

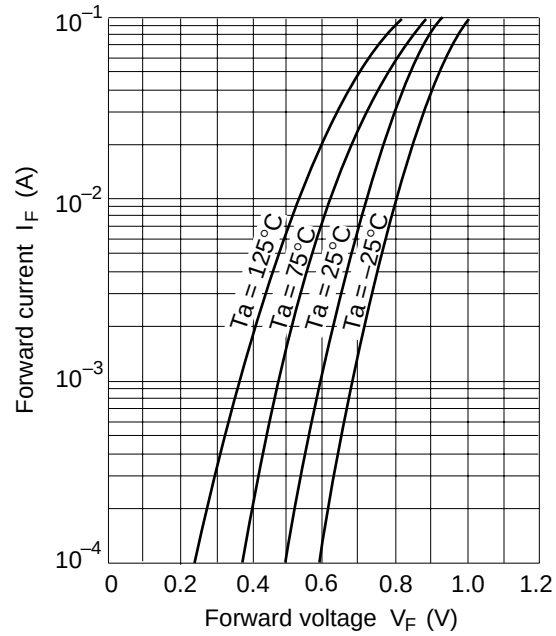
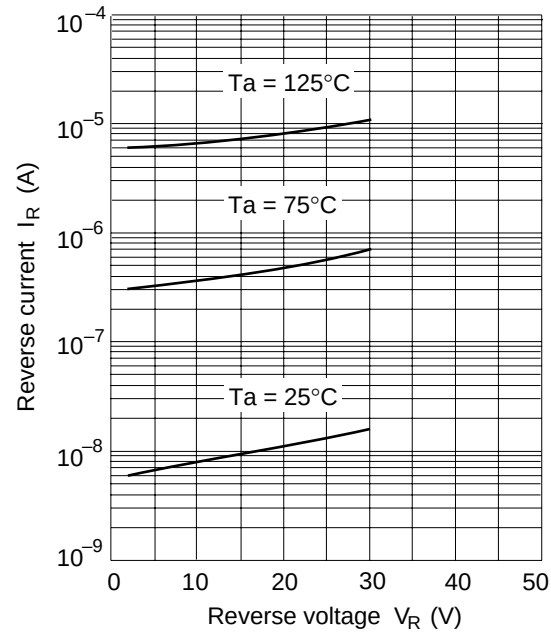
Note: Within 1s forward surge current.

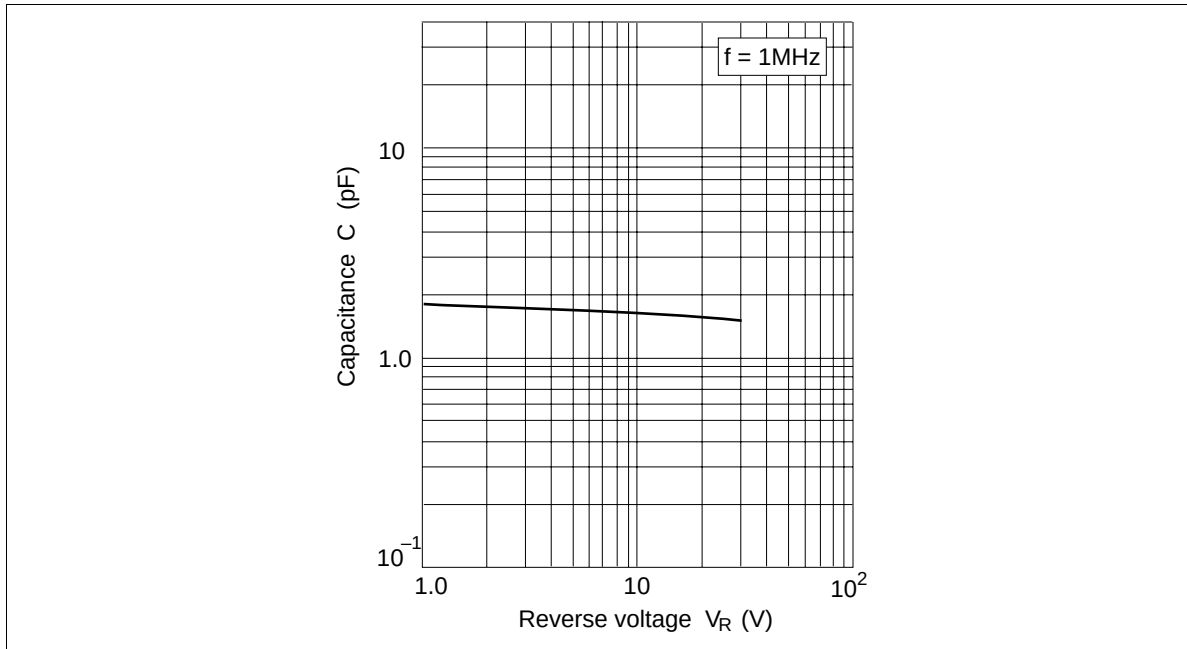
### Electrical Characteristics (Ta = 25°C)

| Item                  | Symbol     | Min  | Typ | Max  | Unit          | Test Condition                                    |
|-----------------------|------------|------|-----|------|---------------|---------------------------------------------------|
| Forward voltage       | $V_F$      | 0.64 | —   | 0.80 | V             | $I_F = 10\text{mA}$                               |
| Reverse current       | $I_R$      | —    | —   | 0.1  | $\mu\text{A}$ | $V_R = 30\text{V}$                                |
| Capacitance           | $C$        | —    | —   | 3.0  | pF            | $V_R = 1\text{V}$ , $f = 1\text{MHz}$             |
| Reverse recovery time | $t_{rr}^*$ | —    | —   | 8.0  | ns            | $I_F = I_R = 10\text{mA}$ , $I_{rr} = 1\text{mA}$ |

Note: Reverse recovery time test circuit



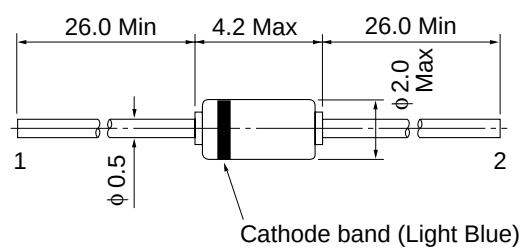
**Fig.1 Forward current Vs. Forward voltage****Fig.2 Reverse current Vs. Reverse voltage**



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

**Package Dimensions**

Unit: mm



- 1 Cathode  
2 Anode

|              |       |
|--------------|-------|
| HITACHI Code | DO-35 |
| JEDEC Code   | DO-35 |
| EIAJ Code    | SC-48 |
| Weight (g)   | 0.13  |

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