

# SPECIFICATION

Device Name : High Voltage Silicon Diode

Type Name : ESJA82-14A

Spec. No. :

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Fuji Electric Co.,Ltd.  
Matsumoto Factory

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|---------|------|------|----------|--|--|--|--|--|--|--|
|         | DATE | NAME | APPROVED | Fuji Electric Co.,Ltd.   |  |  |  |  |  |  |
| DRAWN   |      |      |          | DWG. NO.   |  |  |  |  |  |  |
| CHECKED |      |      |          |  |  |  |  |  |  |  |
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## 1. SCOPE

This specification provide the ratings and the requirements for high voltage silicon diode ESJA82-14A made by FUJI ELECTRIC CO., LTD.

## 2. OUT VIEW

Shape and dimensions are described in Fig.3.

## 3. IDENTIFICATION

The diode shall be marked with Cathode Mark and Lot No..

## 4. RATINGS AND CHARACTERISTICS

### 4.1 ABSOLUTE MAX. RATINGS. ( Ta=25 °C unless otherwise noted. )

| Items                                 | Conditions                     | Symbols   | Ratings | Units  |
|---------------------------------------|--------------------------------|-----------|---------|--------|
| Repetitive peak reverse voltage.      |                                | $V_{RRM}$ | 14      | kVpeak |
| Non-Repetitive peak forward current.  | 50Hz Sine-half wave peak value | $I_{FSM}$ | 0.5     | Apeak  |
| Average forward current.              | 50Hz Sine Wave                 | $I_{AV}$  | 5       | mA     |
| Allowable junction temperature.       |                                | $T_j$     | 120     | °C     |
| Storage temperature range.            |                                | $T_{stg}$ | -40~120 | °C     |
| Allowable operating case temperature. |                                | $T_c$     | 100     | °C     |

### 4.2 ELECTRICAL CHARACTERISTICS ( Ta=25 °C unless otherwise noted. )

| Items                         | Conditions     | Symbols  | Ratings | Units   |
|-------------------------------|----------------|----------|---------|---------|
| Maximum forward voltage drop  | IF=10mA        | VF       | 56.1    | V       |
| Maximum reverse current       | VR=14kV        | $I_{R1}$ | 2       | $\mu A$ |
| Maximum reverse current       | VR=14kV, 100°C | $I_{R2}$ | 5       | $\mu A$ |
| Maximum reverse recovery time | IF=2mA, IR=4mA | $t_{rr}$ | 0.06    | $\mu S$ |
| Maximum junction capacitance  | f=1MHz, VR=0V  | Cj       | 1       | pF      |

### 4.3 MECHANICAL CHARACTERISTICS

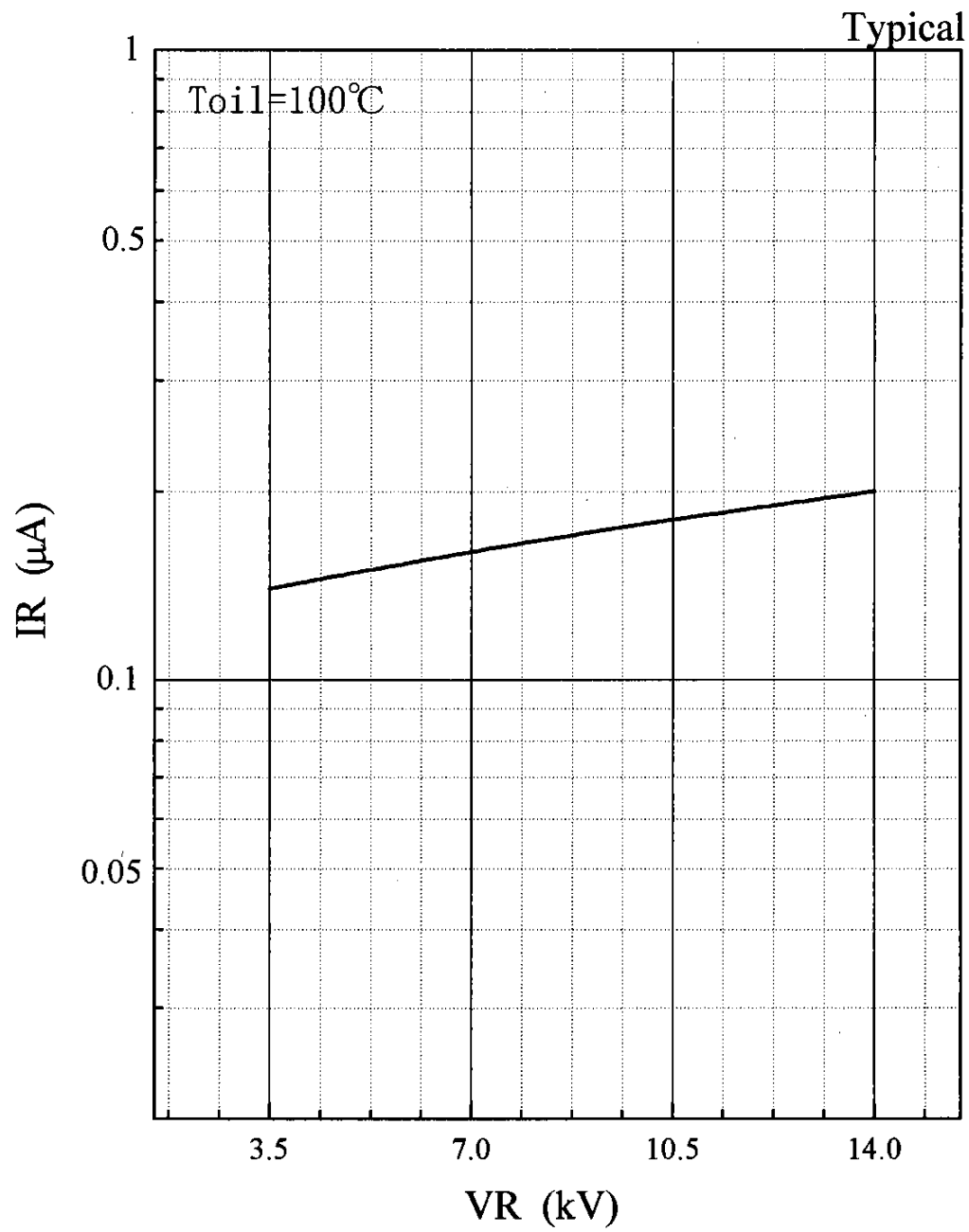
Weight : Ca. 0.3 gr.

Vibration proof : 5 G

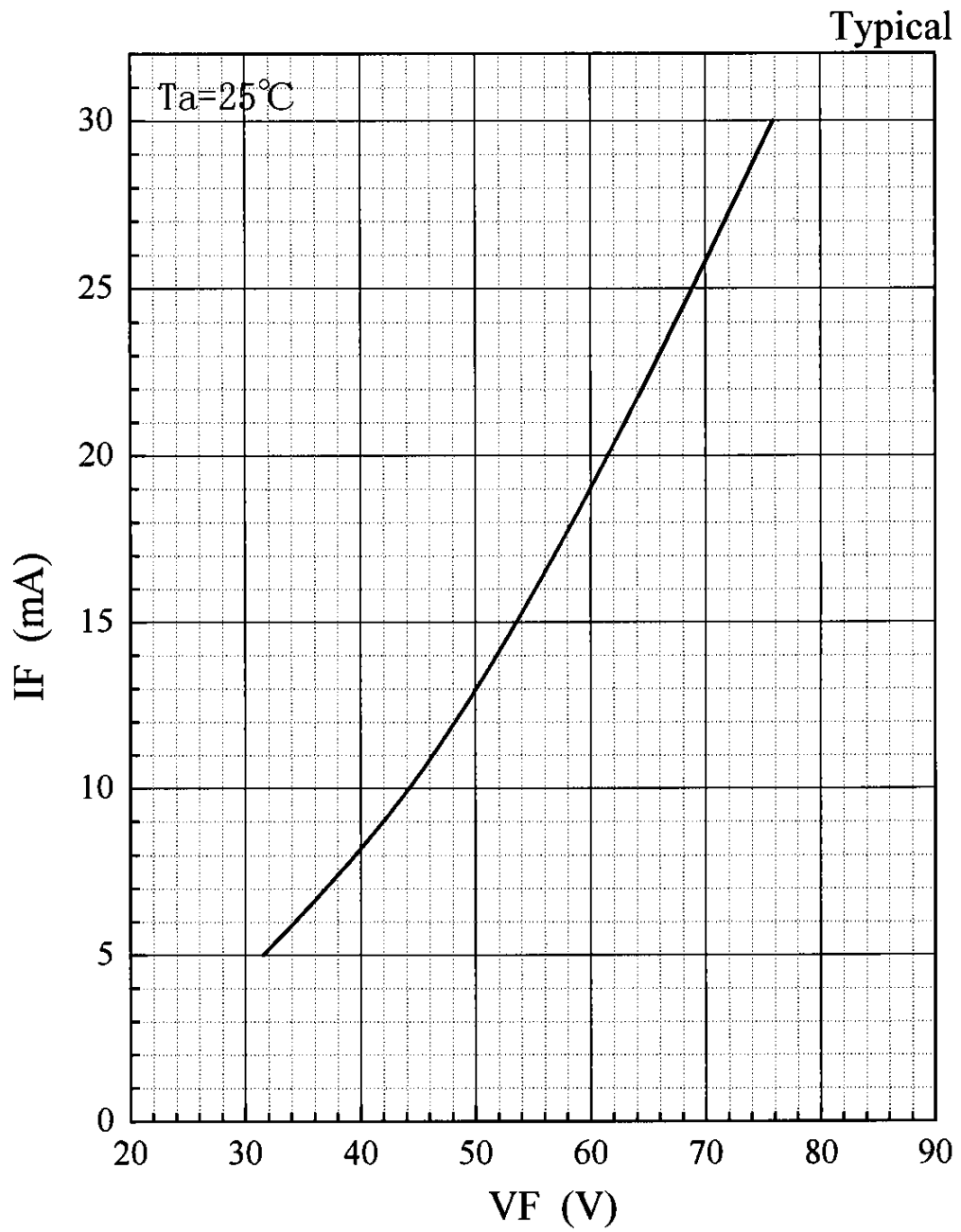
**Fuji Electric Co.,Ltd.**

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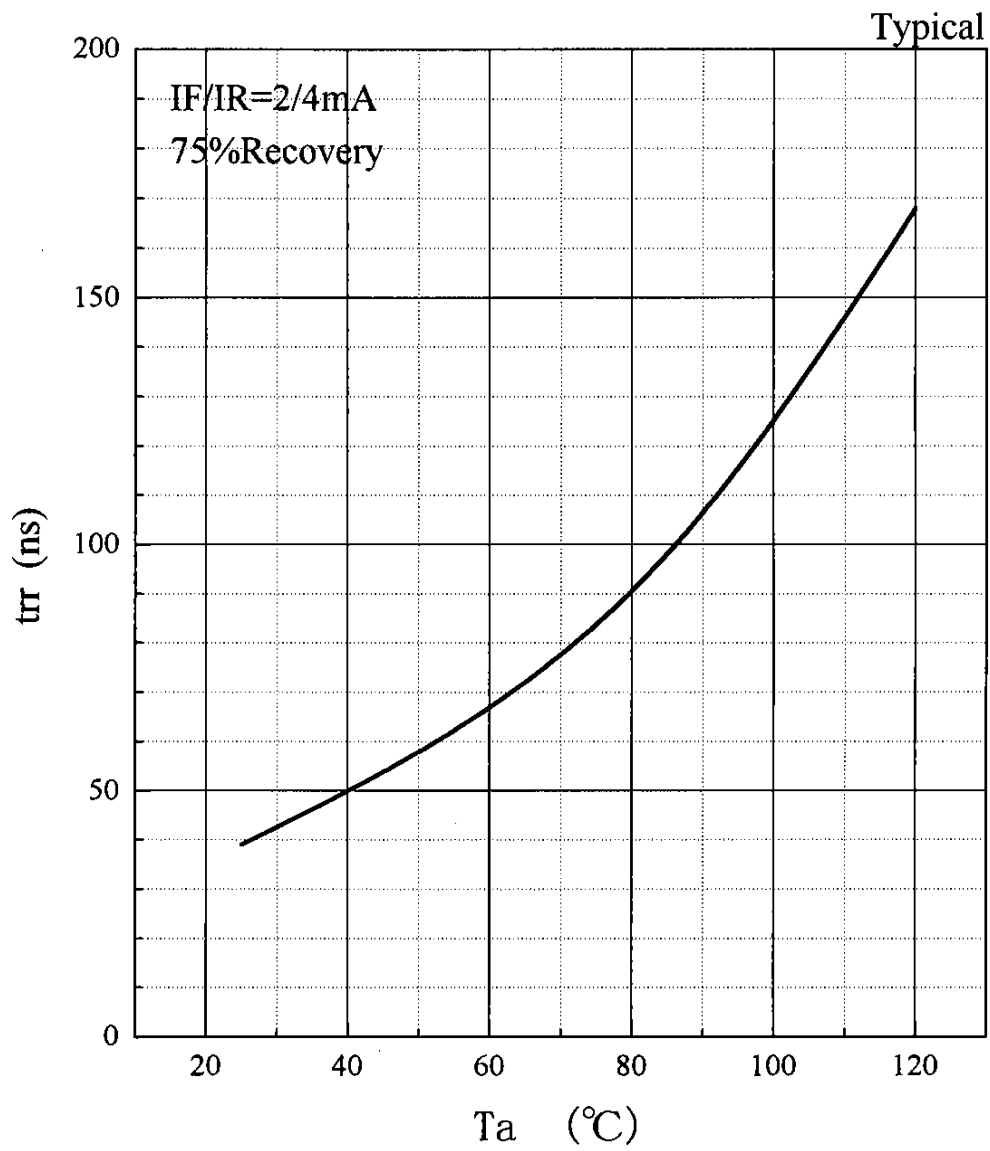
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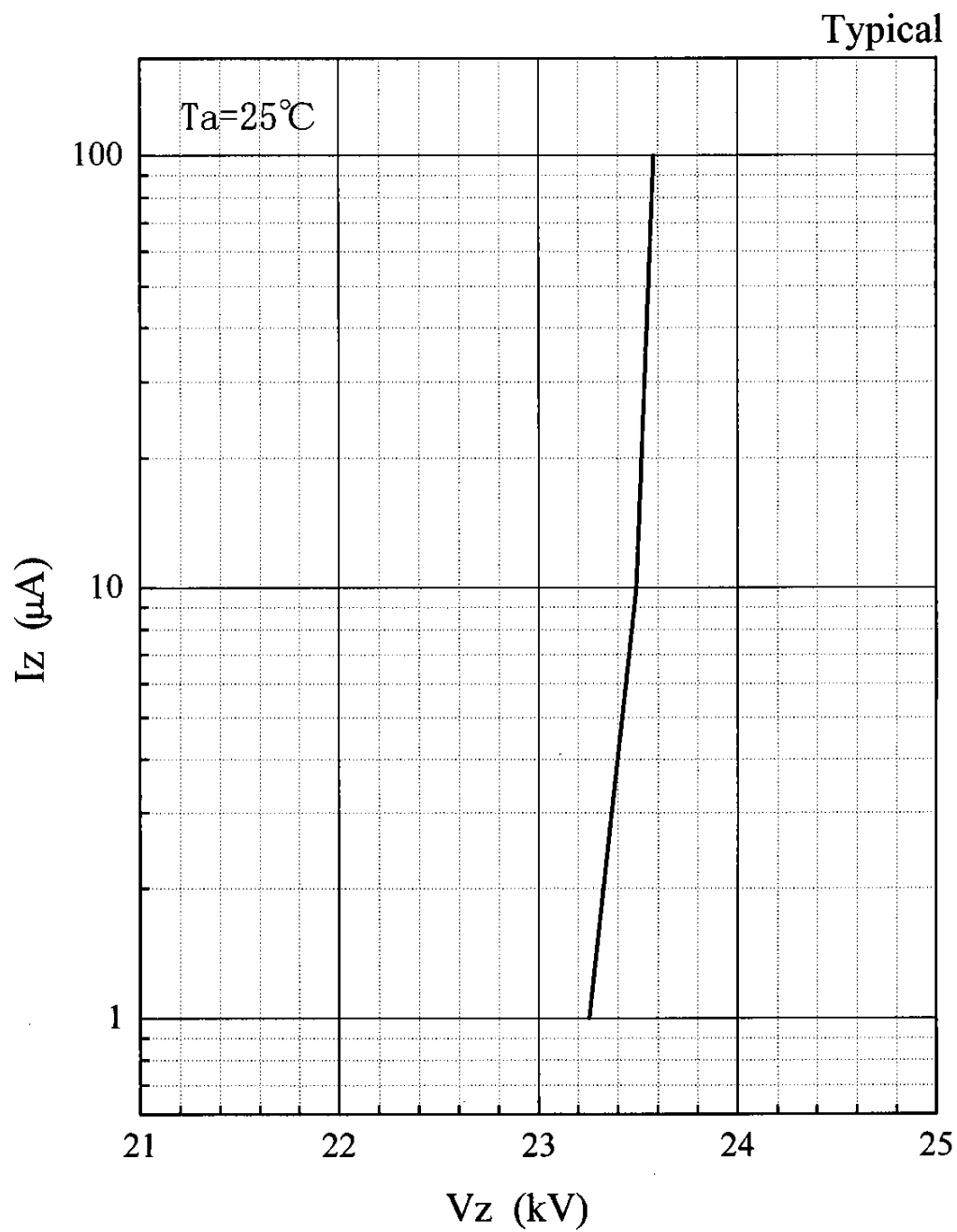
*Fig.2 Reverse characteristic[VR-IR]*



*Fig.1 Forward characteristic[VF-IF]*



*Fig.4 Reverse recovery time characteristic [Ta-trr]*



*Fig.3 Avalanche characteristic [ $V_z$ - $I_z$ ]*

Dimensions

Unit : mm

ESJA82-□□A

