

SPECIFICATION

Device Name : High Voltage Silicon Diode

Type Name : ESJA59-14A

Spec. No. : _____

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Fuji Electric Co., Ltd.
Matsumoto Factory

| | DATE | NAME | APPROVED | Fuji Electric Co., Ltd. | |
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1. SCOPE

This specification provide the ratings and the requirements for high voltage silicon diode ESJA59-14A 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 | $I_F=10mA$ | V_F | 51 | V |
| Maximum reverse current | $V_R=14kV$ | I_{R1} | 2 | μA |
| Maximum reverse current | $V_R=14kV, 100^\circ C$ | I_{R2} | 5 | μA |
| Maximum reverse recovery time | $I_F=2mA, I_R=4mA$ | t_{rr} | 0.08 | μS |
| Maximum junction capacitance | $f=1MHz, V_R=0V$ | C_j | 1 | pF |

4.3 MECHANICAL CHARACTERISTICS

Weight : Ca. 0.3 gr.

Vibration proof : 5 G

Fuji Electric Co.,Ltd.

DWG.NO.

H04-004-03

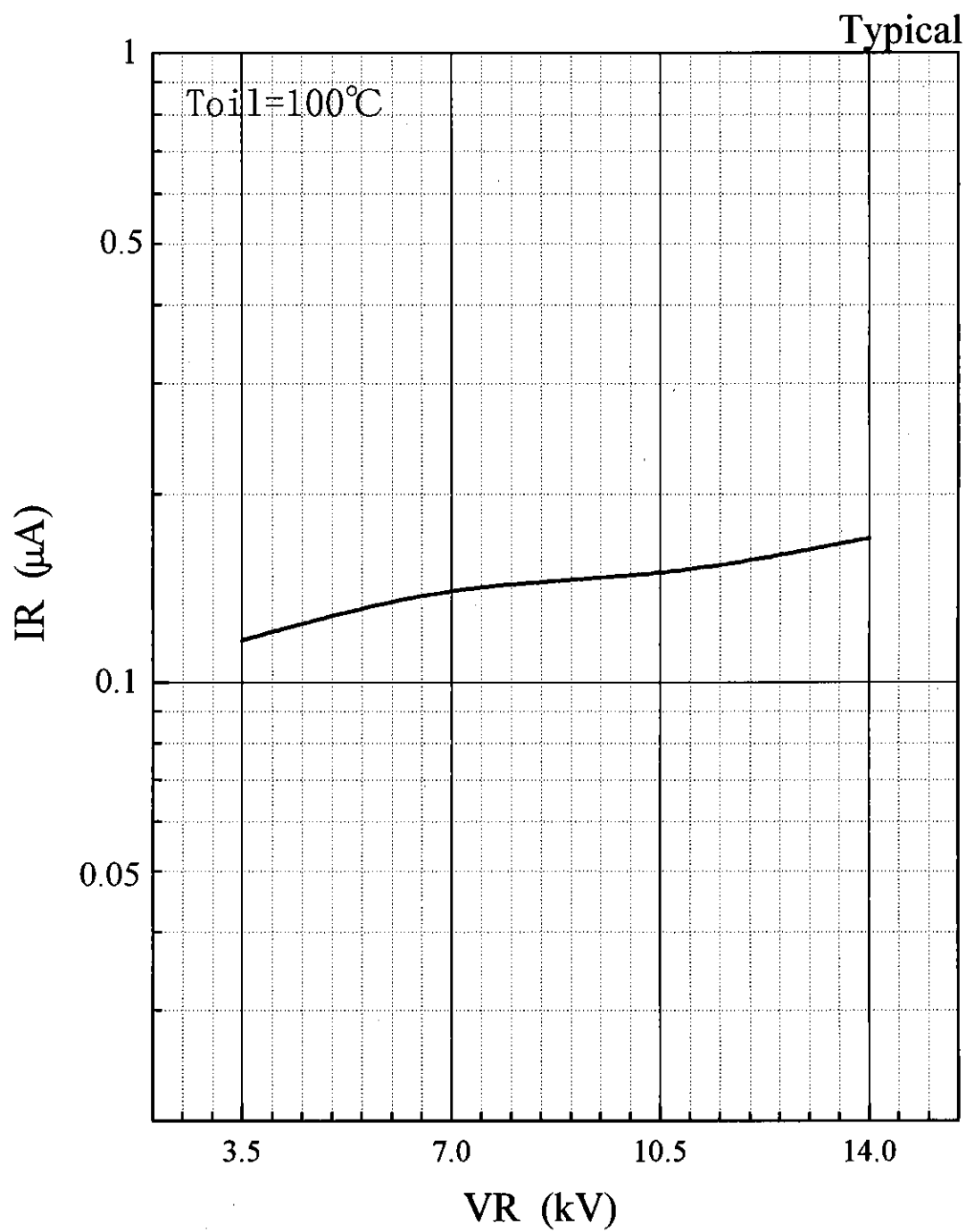


Fig.2 Reverse characteristic[VR-IR]

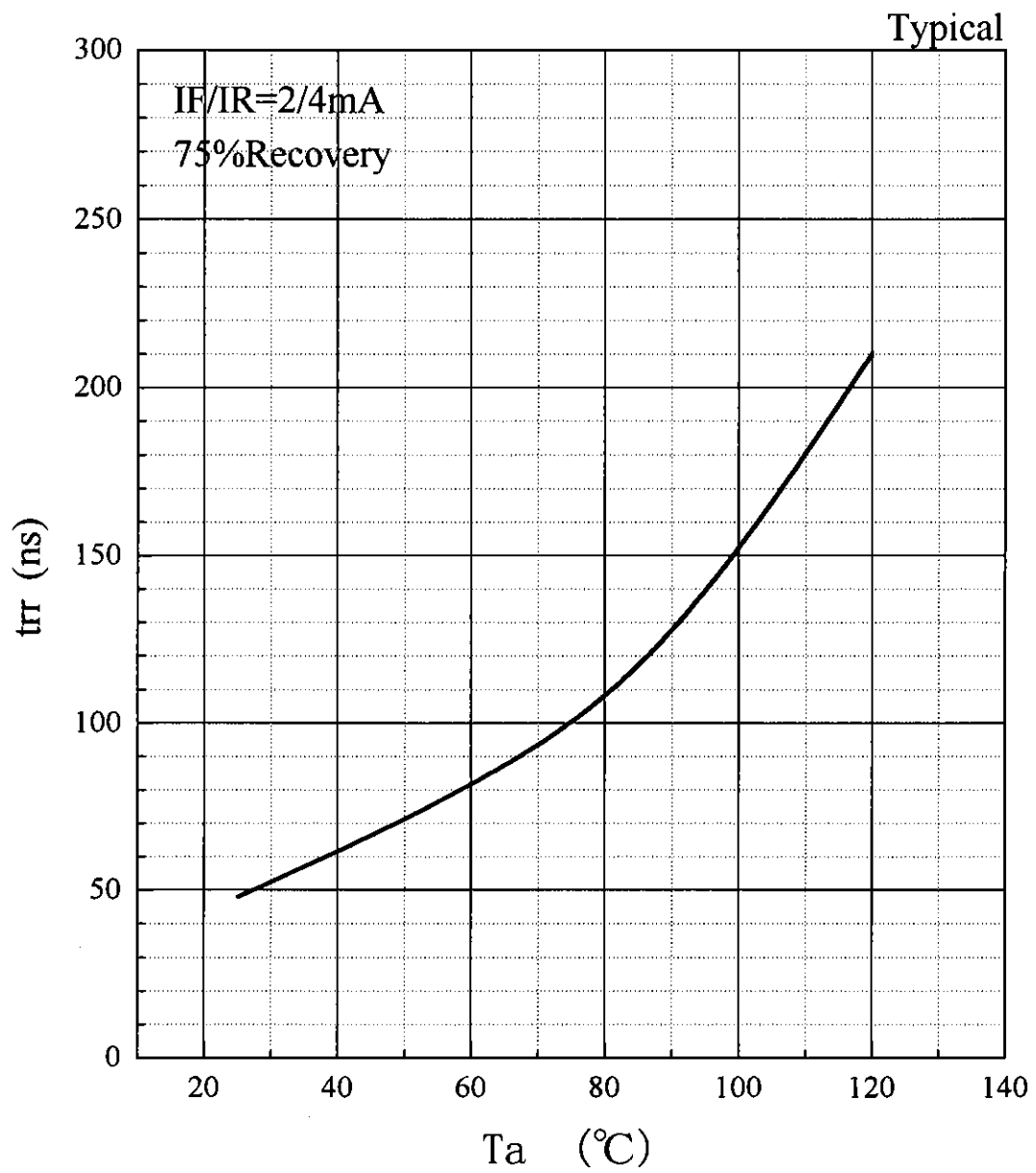


Fig.4 Reverse recovery time characteristic [Ta-trr]

Typical

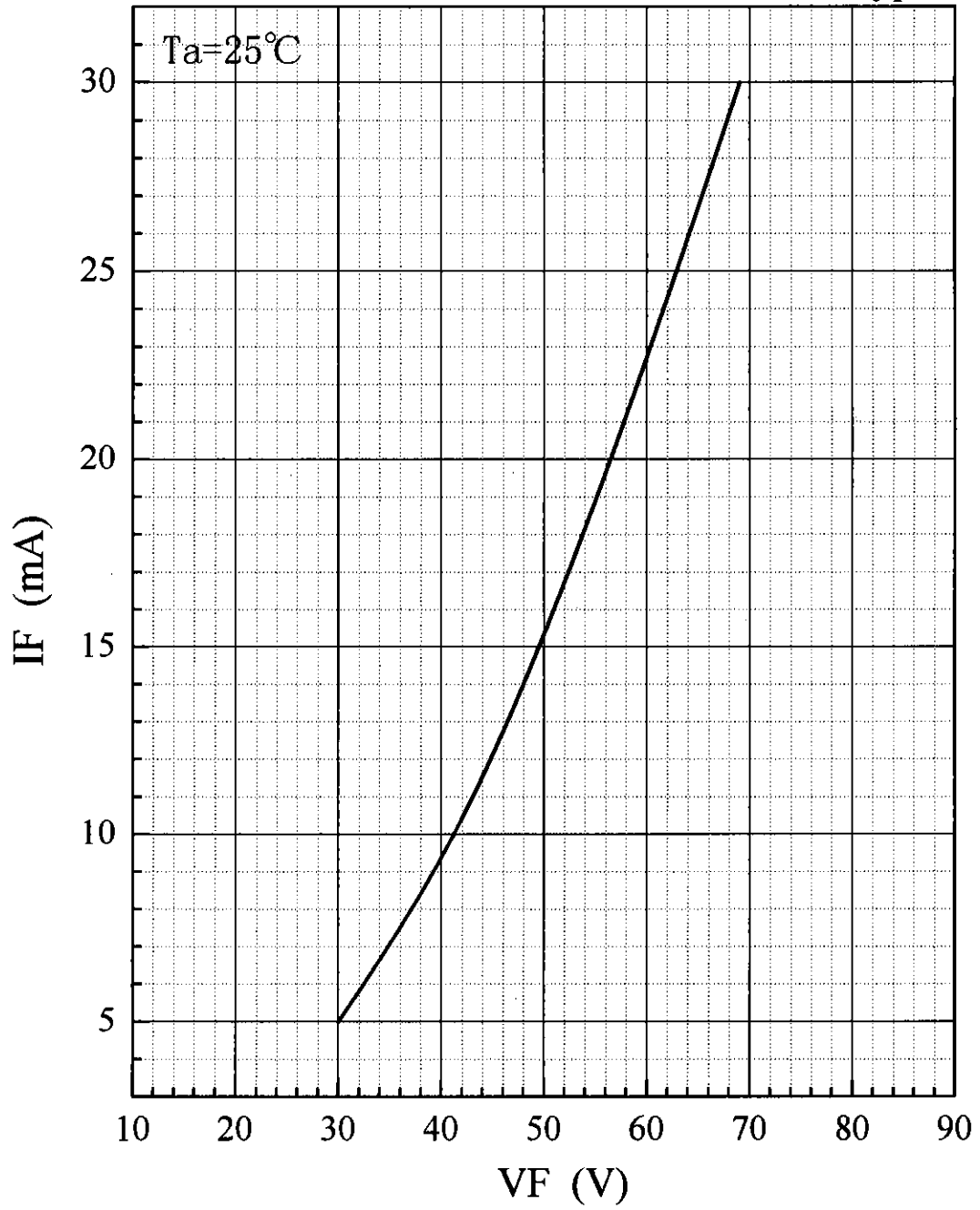


Fig.1 Forward characteristic[V_F - I_F]

Typical

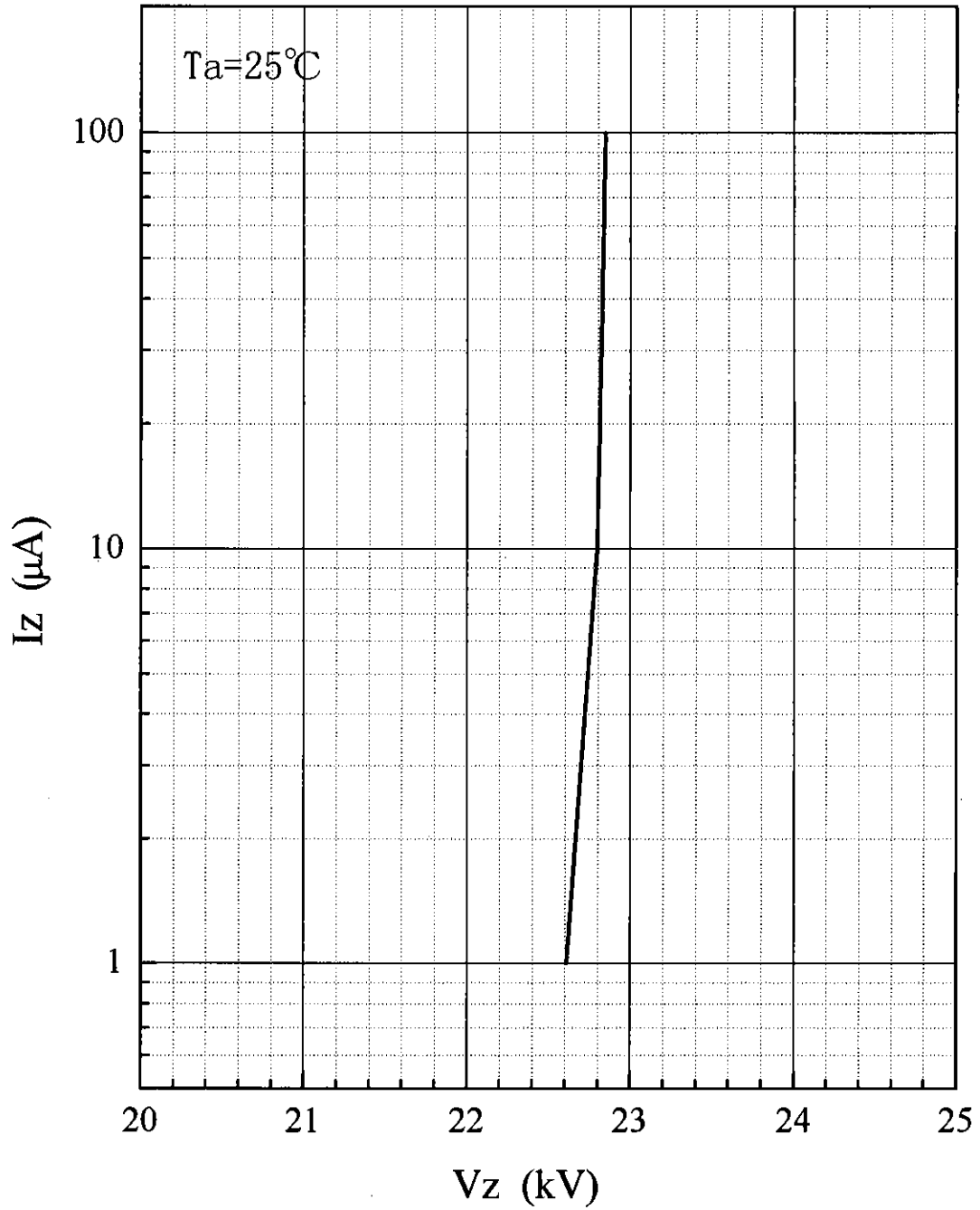
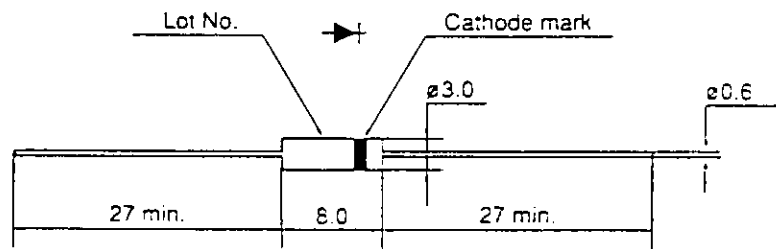


Fig.3 Avalanche characteristic [V_z - I_z]

Dimensions

Unit : mm

ESJA59-□□A



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