

# SPECIFICATION

Device Name : High Voltage Silicon Diode

Type Name : ESJA52-12A

Spec. No. :

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Fuji Electric Co., Ltd.  
Matsumoto Factory

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

This specification provide the ratings and the requirements for high voltage silicon diode ESJA52-12A 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.		$V_{RRM}$	12	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	45	V
Maximum reverse current	VR=12kV	$I_{R1}$	2	μA
Maximum reverse current	VR=12kV. 100°C	$I_{R2}$	5	μA
Maximum reverse recovery time	IF=2mA. IR=4mA	$t_{rr}$	0.08	μS
Maximum junction capacitance	f=1MHz. VR=0V	Cj	2	pF

### 4.3 MECHANICAL CHARACTERISTICS

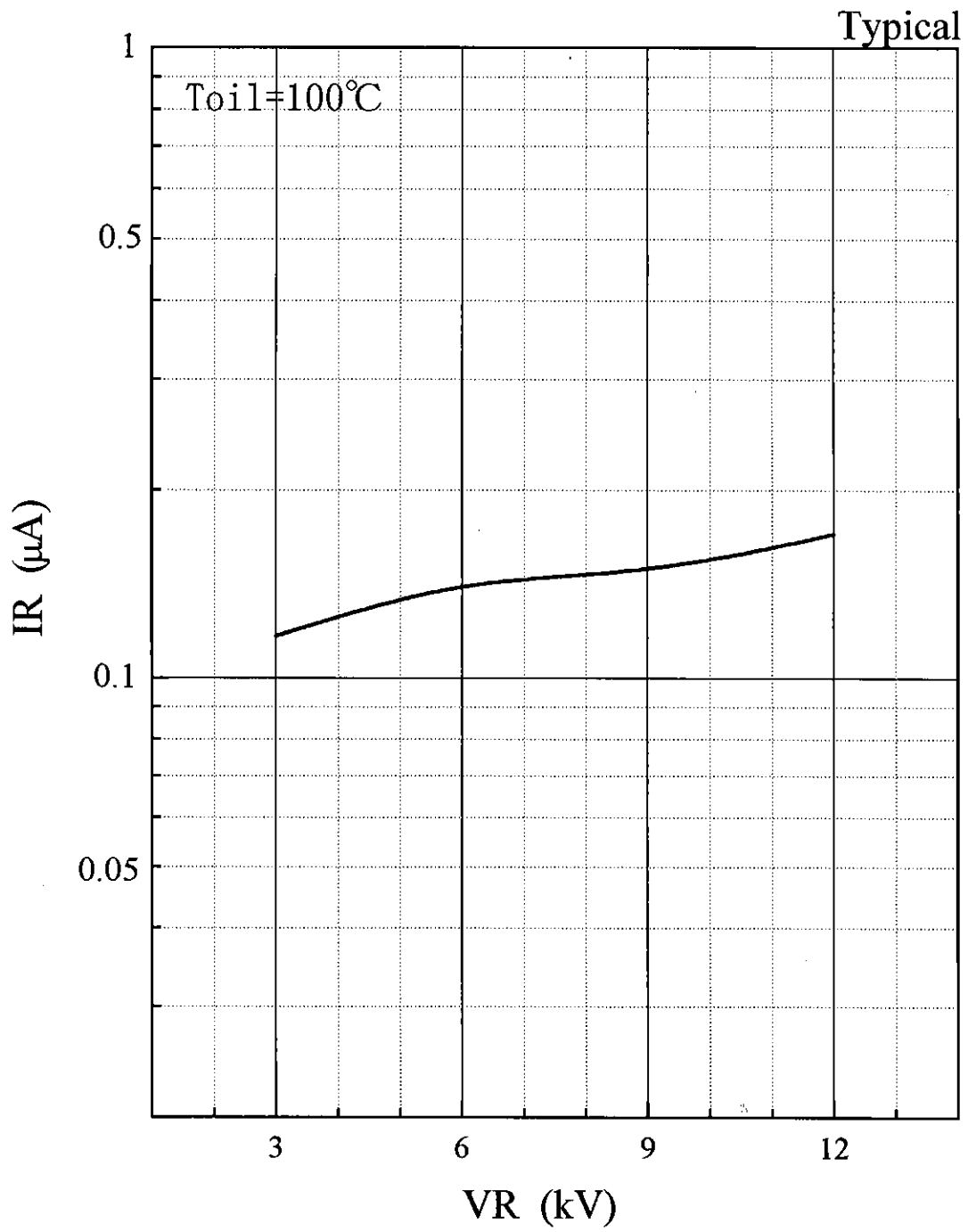
Weight : 0.3 gr.

Vibration proof : 5 G

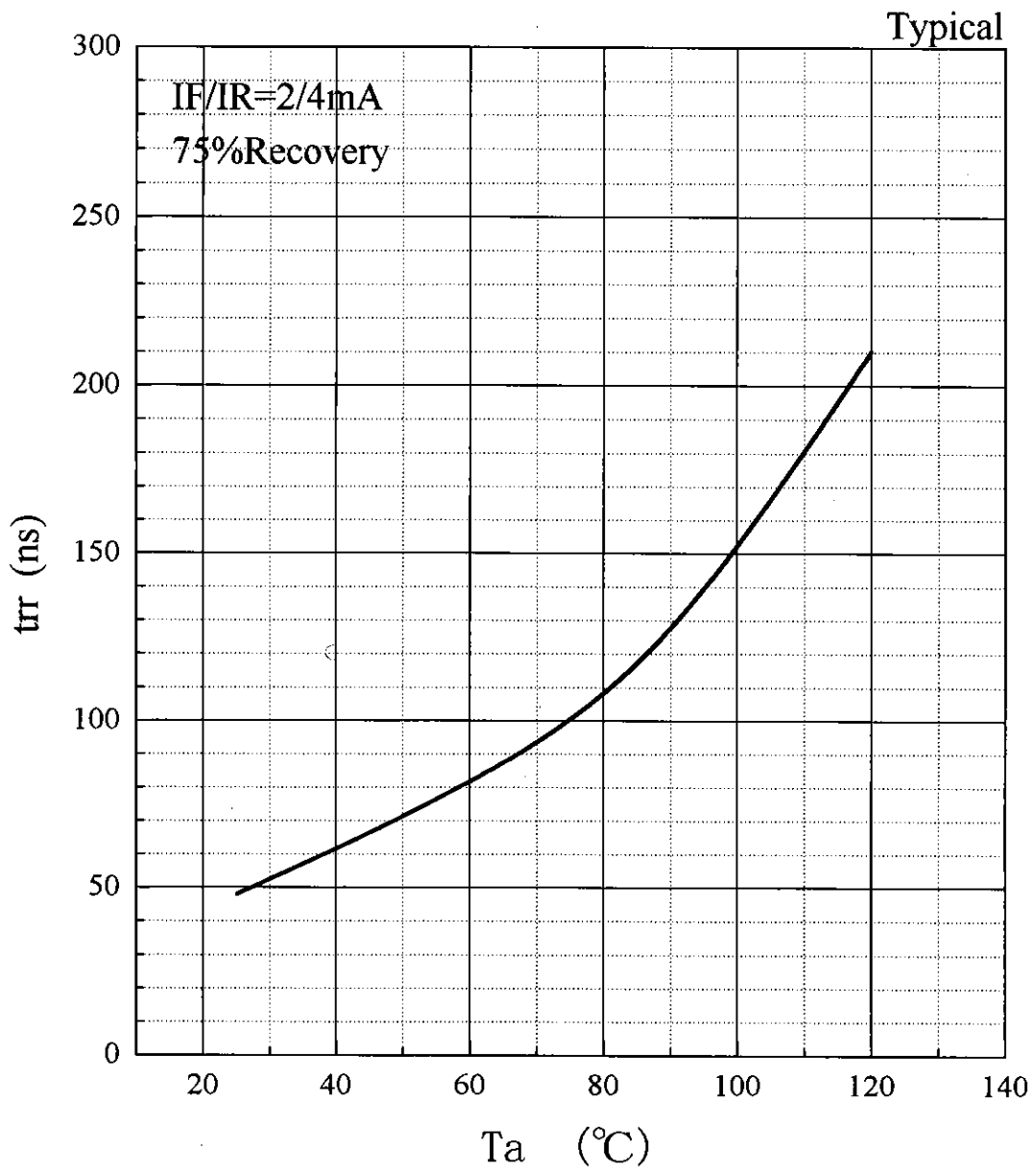
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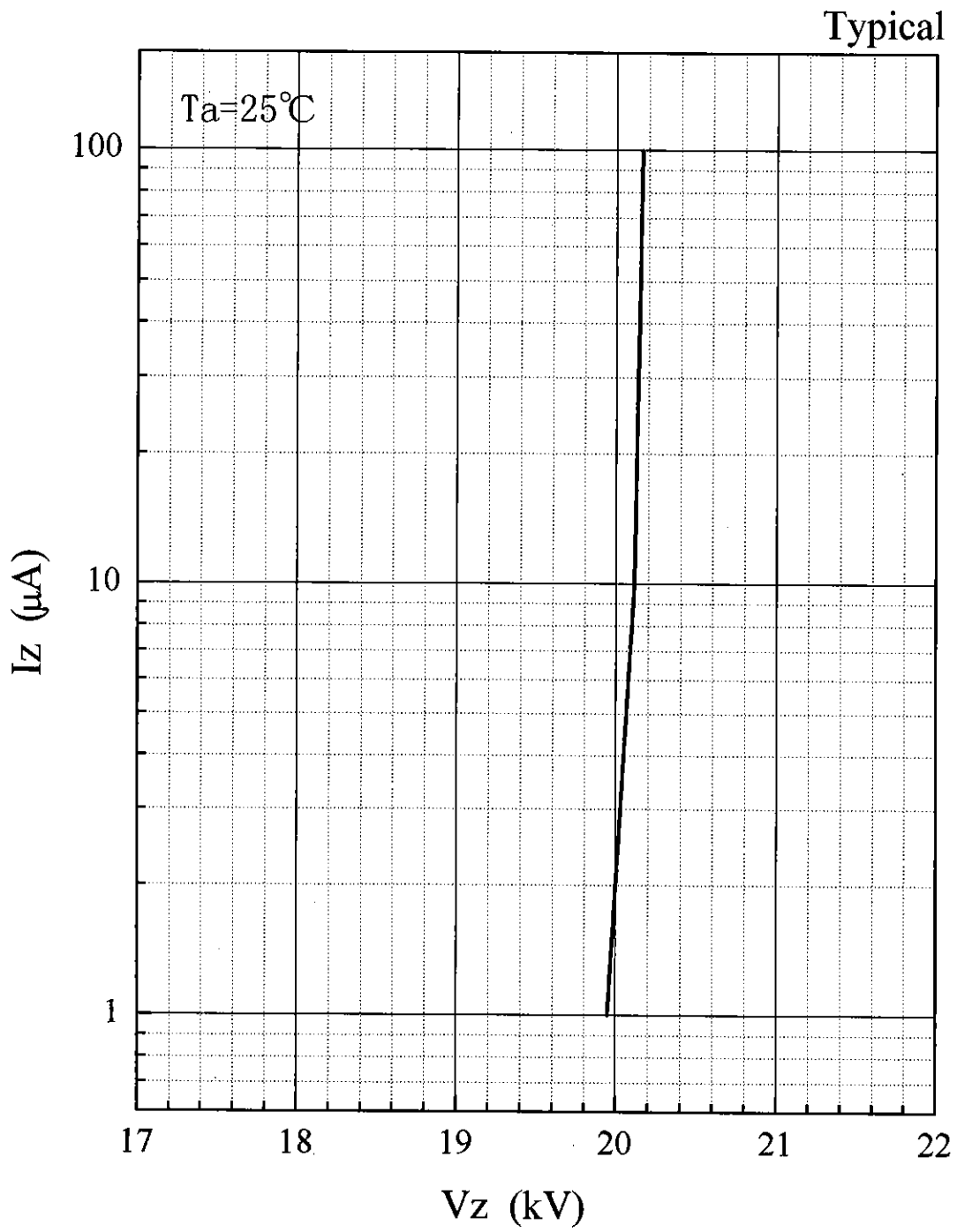
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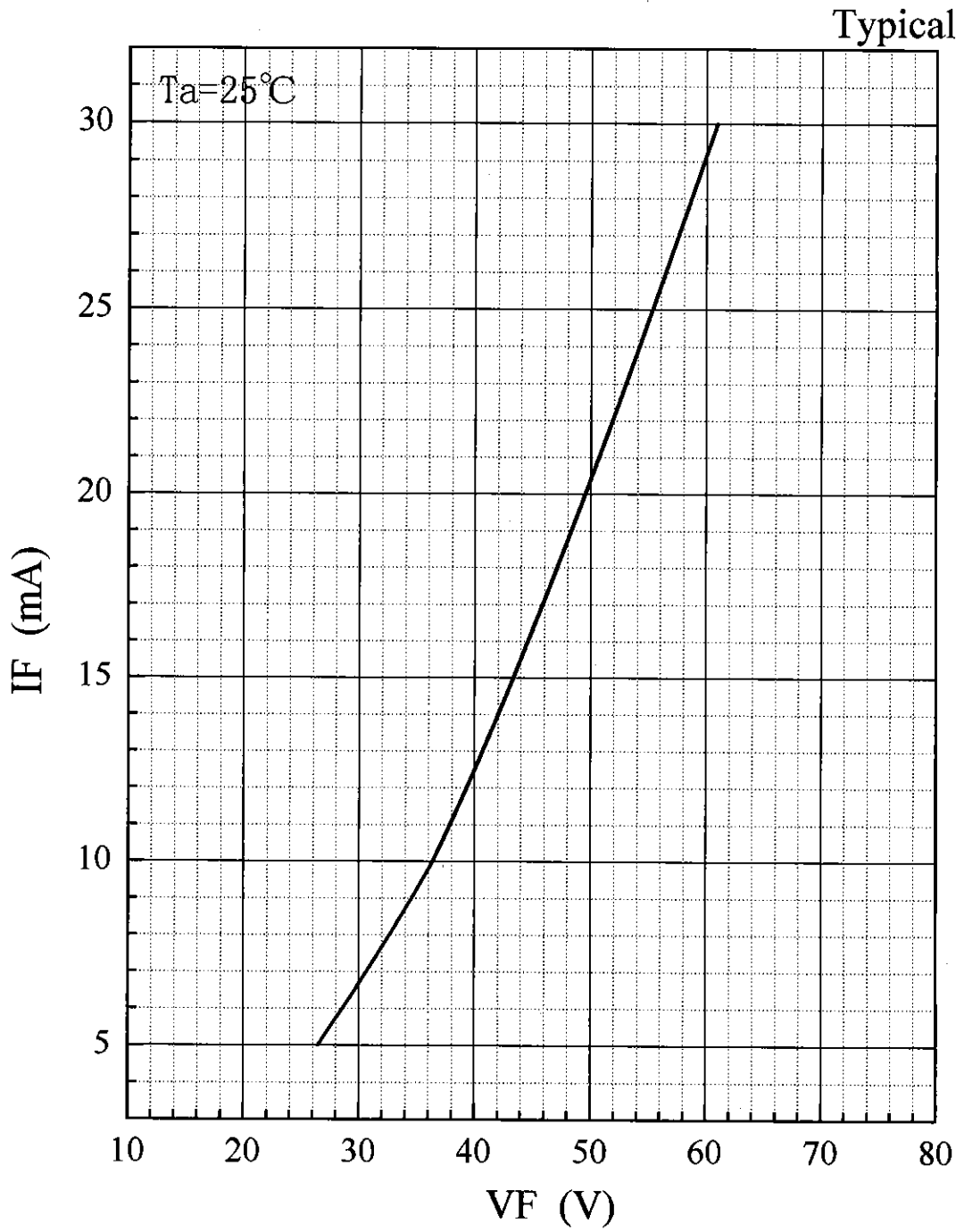
*Fig.2 Reverse characteristic[VR-IR]*



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



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

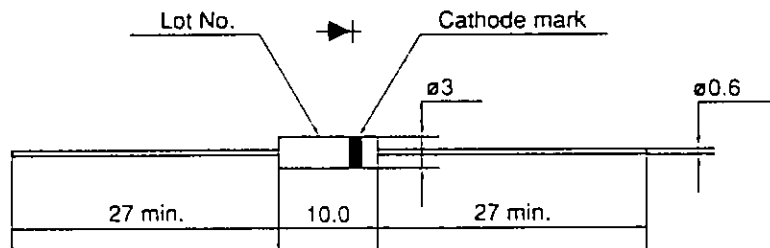


*Fig.1 Forward characteristic [VF-IF]*

Dimensions

Unit : mm

ESJA52-□□A



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