

SPECIFICATION

Device Name : High Voltage Silicon Diode

Type Name : ESJA59-12A

Spec. No. :

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Fuji Electric Co., Ltd.
Matsumoto Factory

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

1. SCOPE

This specification provide the ratings and the requirements for high voltage silicon diode ESJA59-12A 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	$I_F=10mA$	V_F	45	V
Maximum reverse current	$V_R=12kV$	I_{R1}	2	μA
Maximum reverse current	$V_R=12kV, 100^\circ C$	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

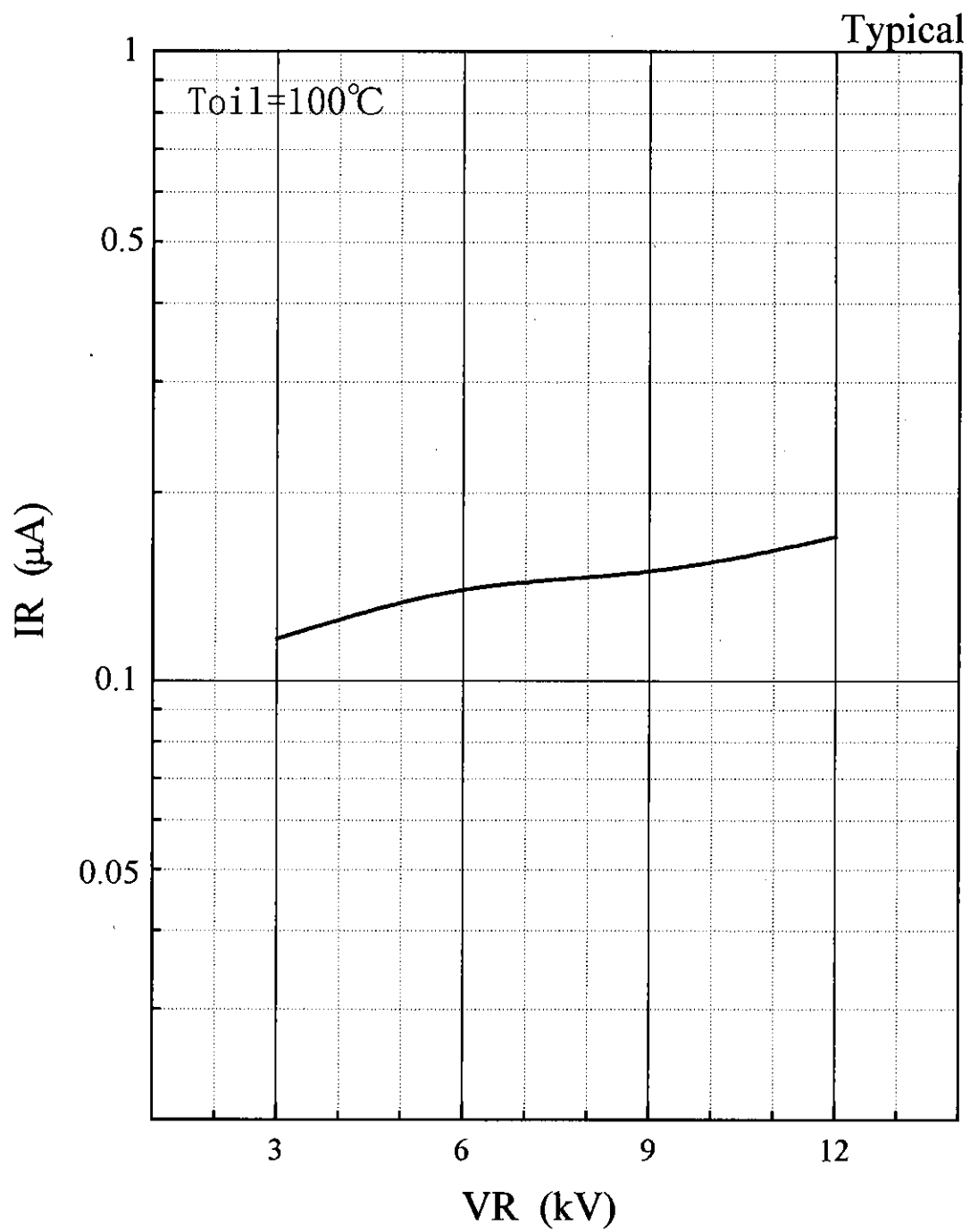


Fig.2 Reverse characteristic[VR-IR]

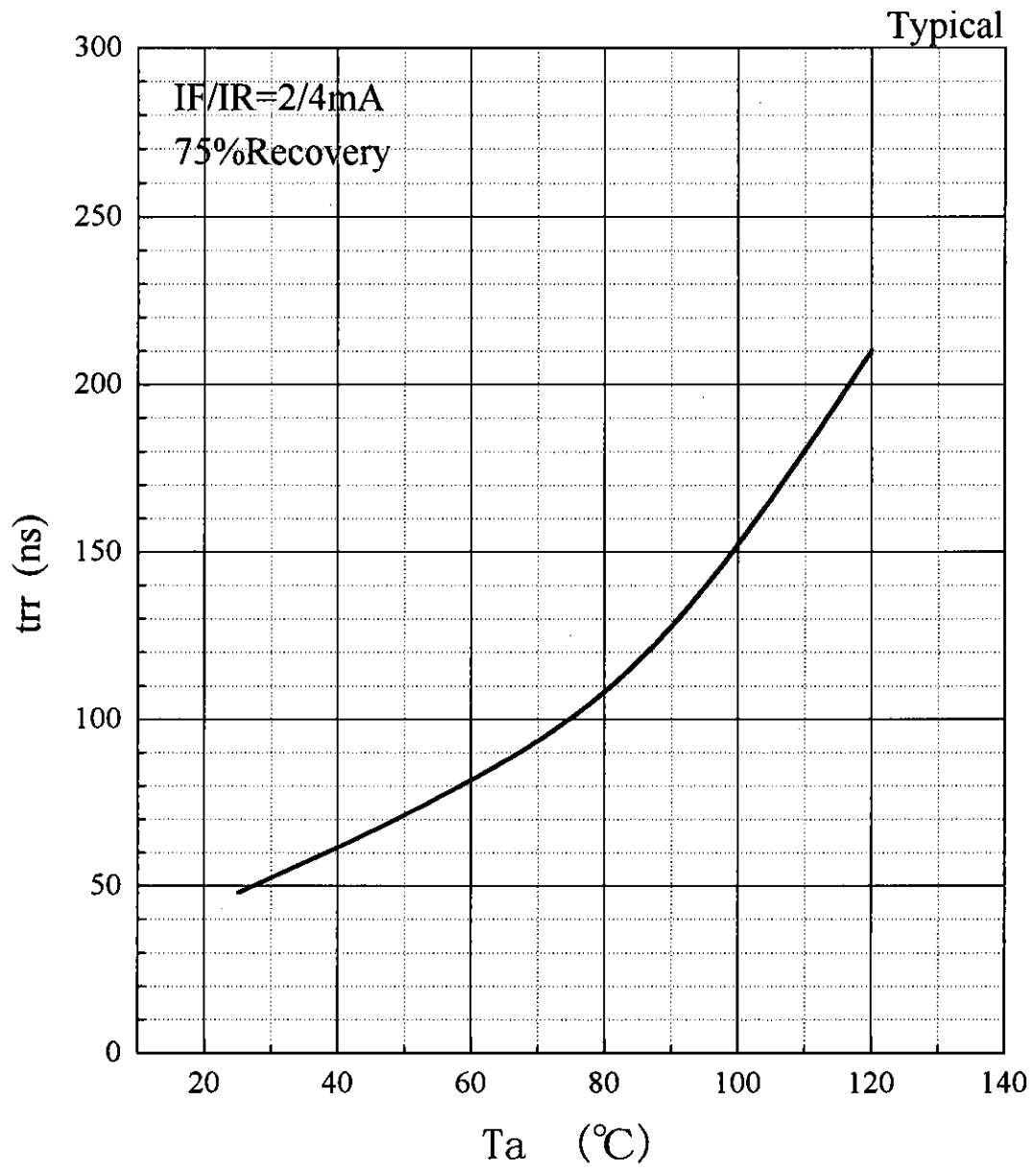


Fig.4 Reverse recovery time characteristic[T_a - t_{rr}]

Typical

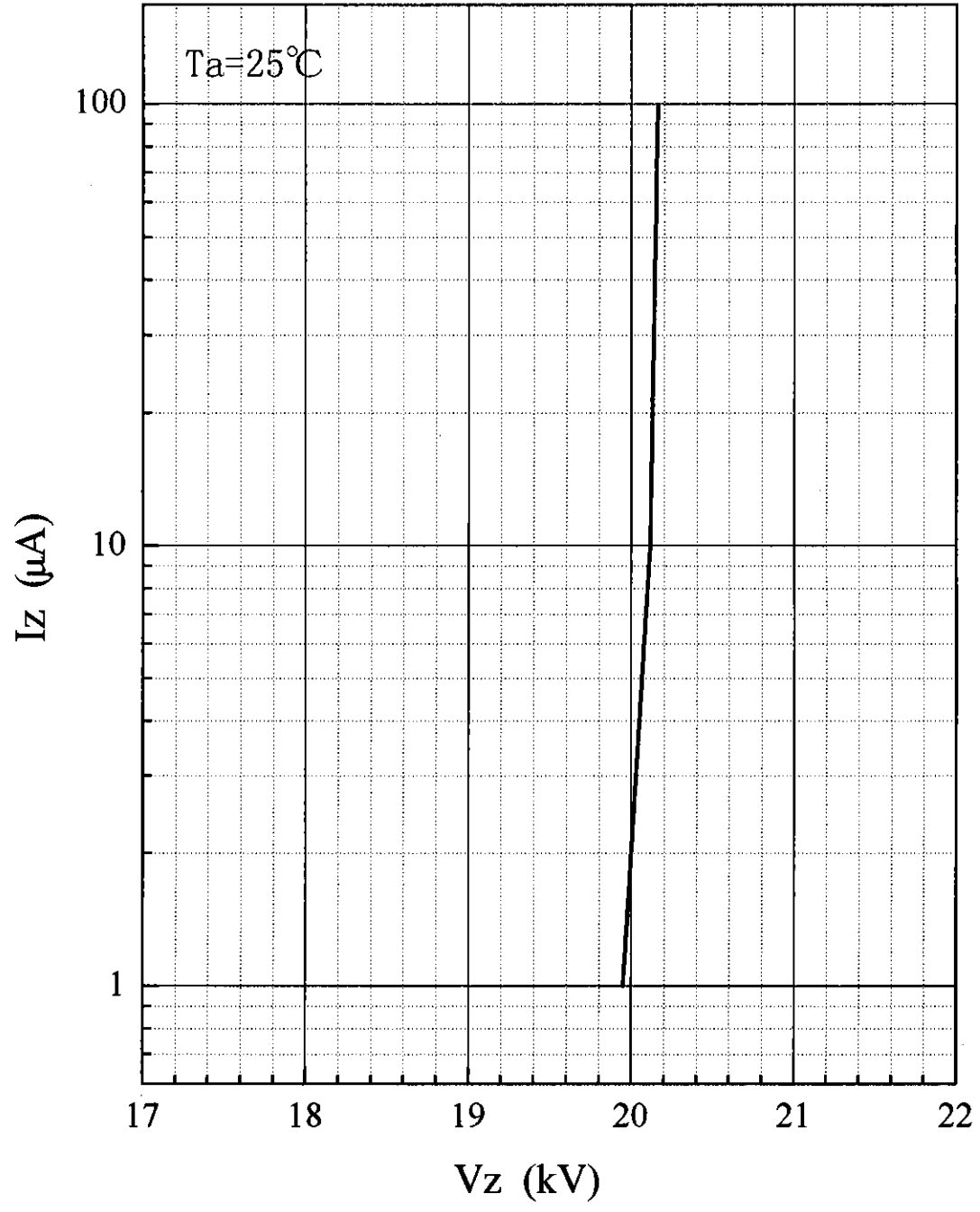


Fig.3 Avalanche characteristic [Vz-Iz]

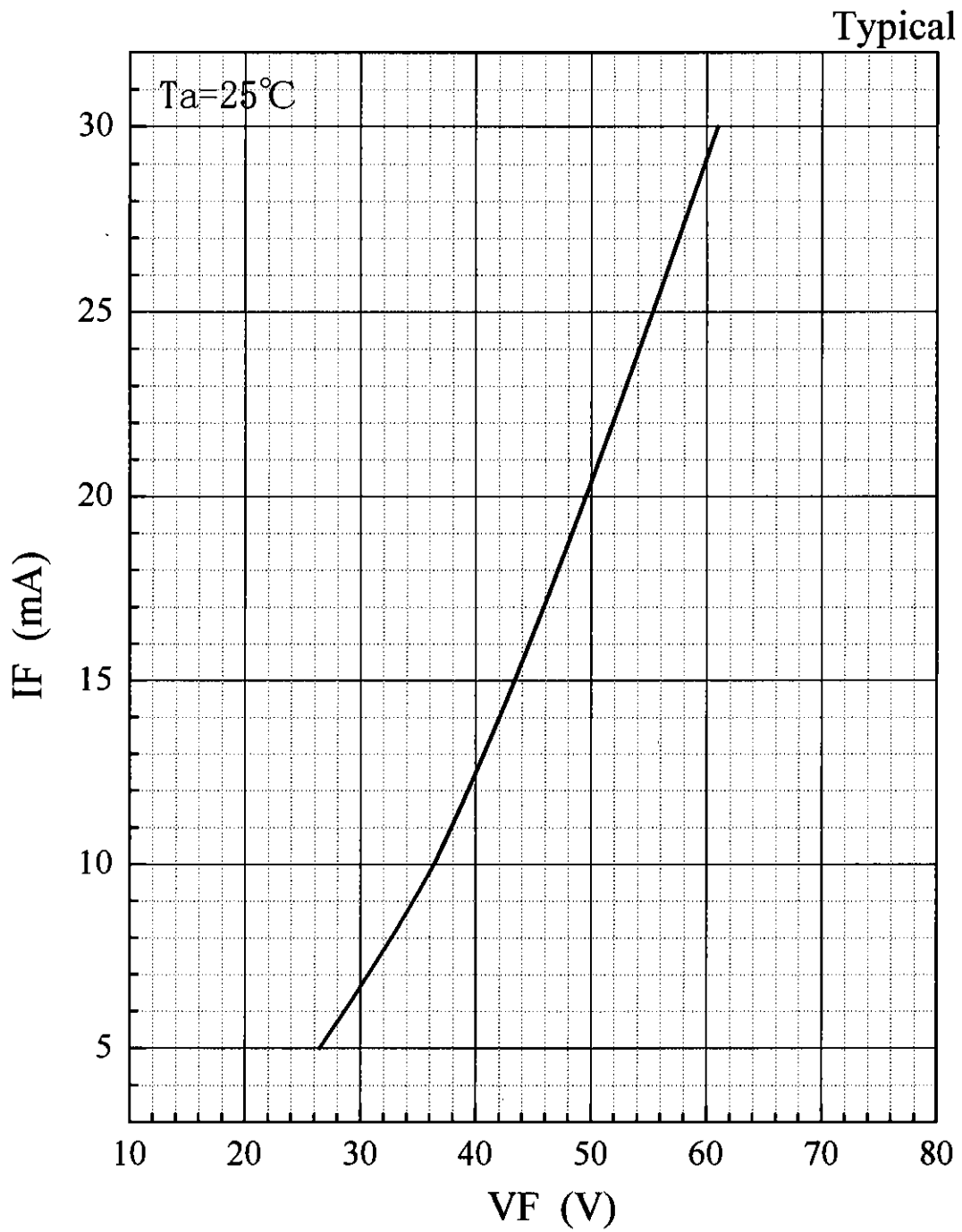
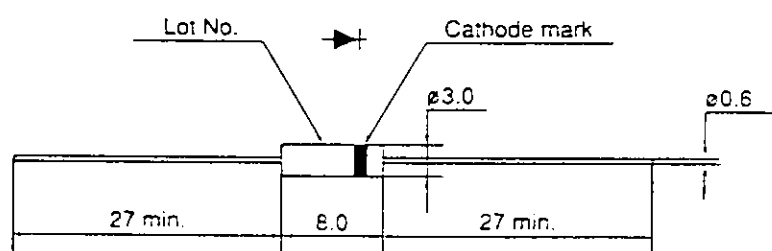


Fig.1 Forward characteristic[V_F - I_F]

Dimensions

Unit : mm

ESJA59-□□A



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