

# SPECIFICATION

Device Name : High Voltage Silicon Diode

Type Name : ESJA89-10A

Spec. No. :

This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

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 ESJA89-10A 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.		$V_{RRM}$	10	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	$I_F=10mA$	$V_F$	39.6	V
Maximum reverse current	$V_R=10kV$	$I_{R1}$	2	$\mu A$
Maximum reverse current	$V_R=10kV, 100^\circ C$	$I_{R2}$	5	$\mu A$
Maximum reverse recovery time	$I_F=2mA, I_R=4mA$	$t_{rr}$	0.06	$\mu S$
Maximum junction capacitance	$f=1MHz, V_R=0V$	$C_j$	1	pF

### 4.3 MECHANICAL CHARACTERISTICS

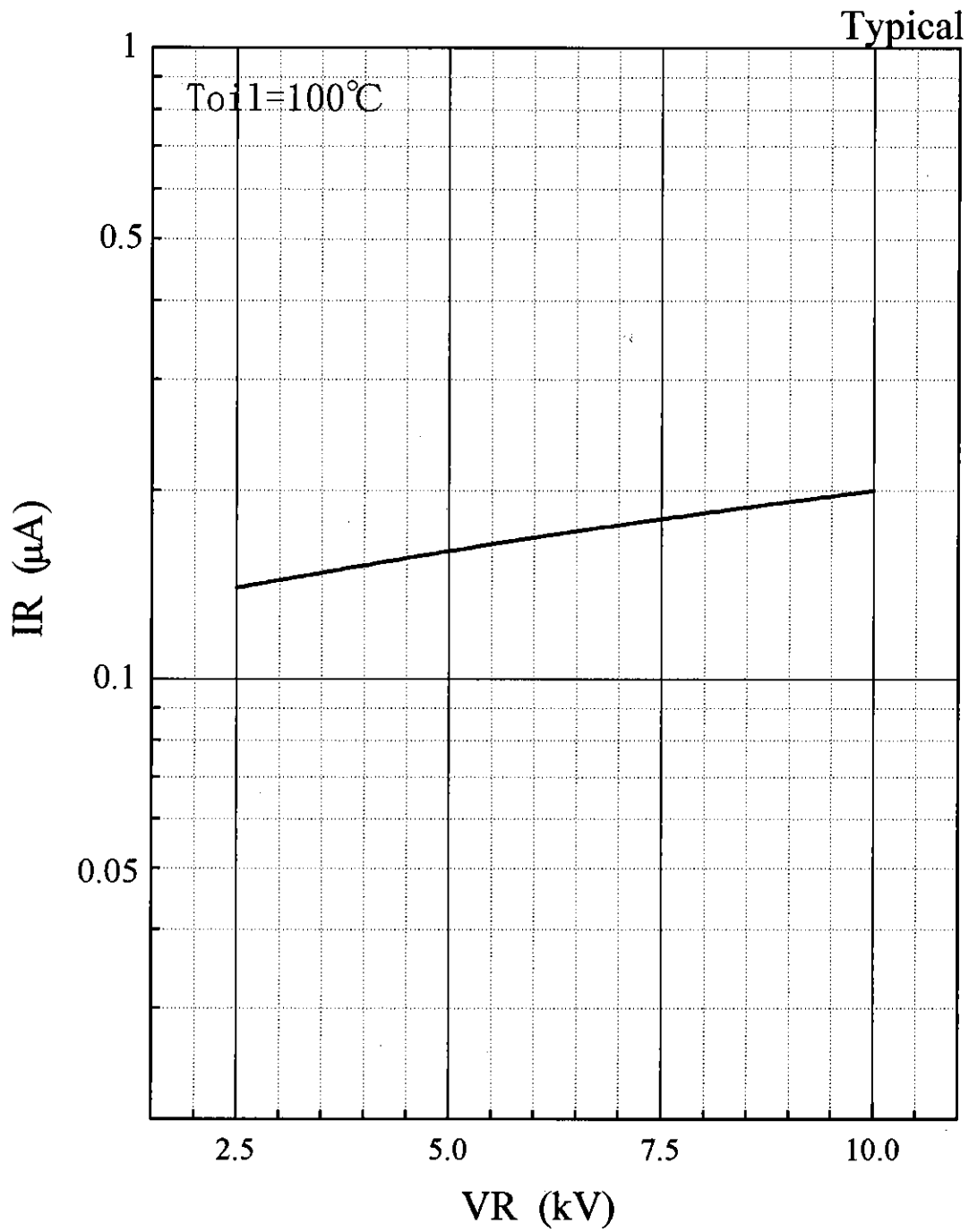
Weight : Ca. 0.3 gr.

Vibration proof : 5 G

Fuji Electric Co.,Ltd

DWG.NO.

H04-004-03



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

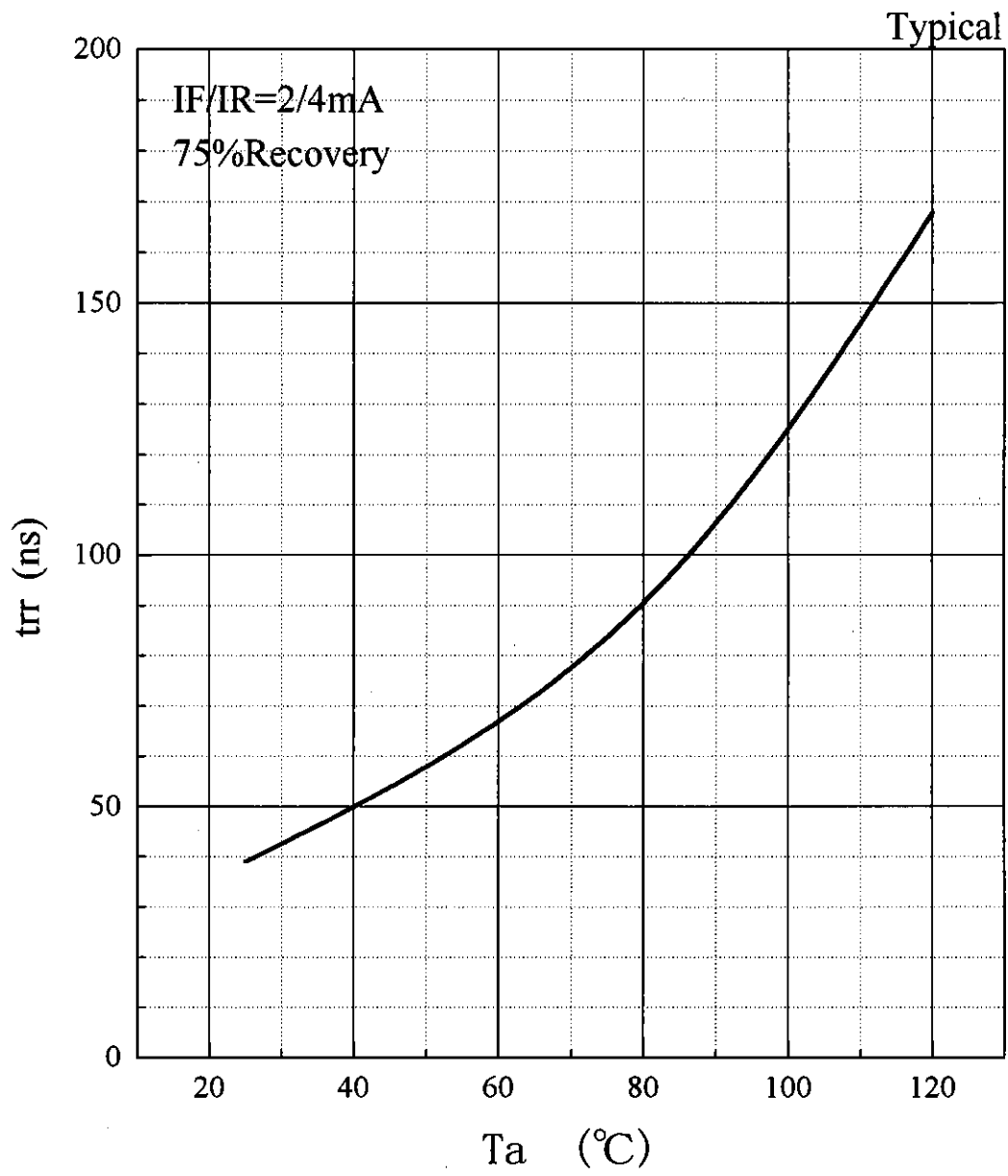
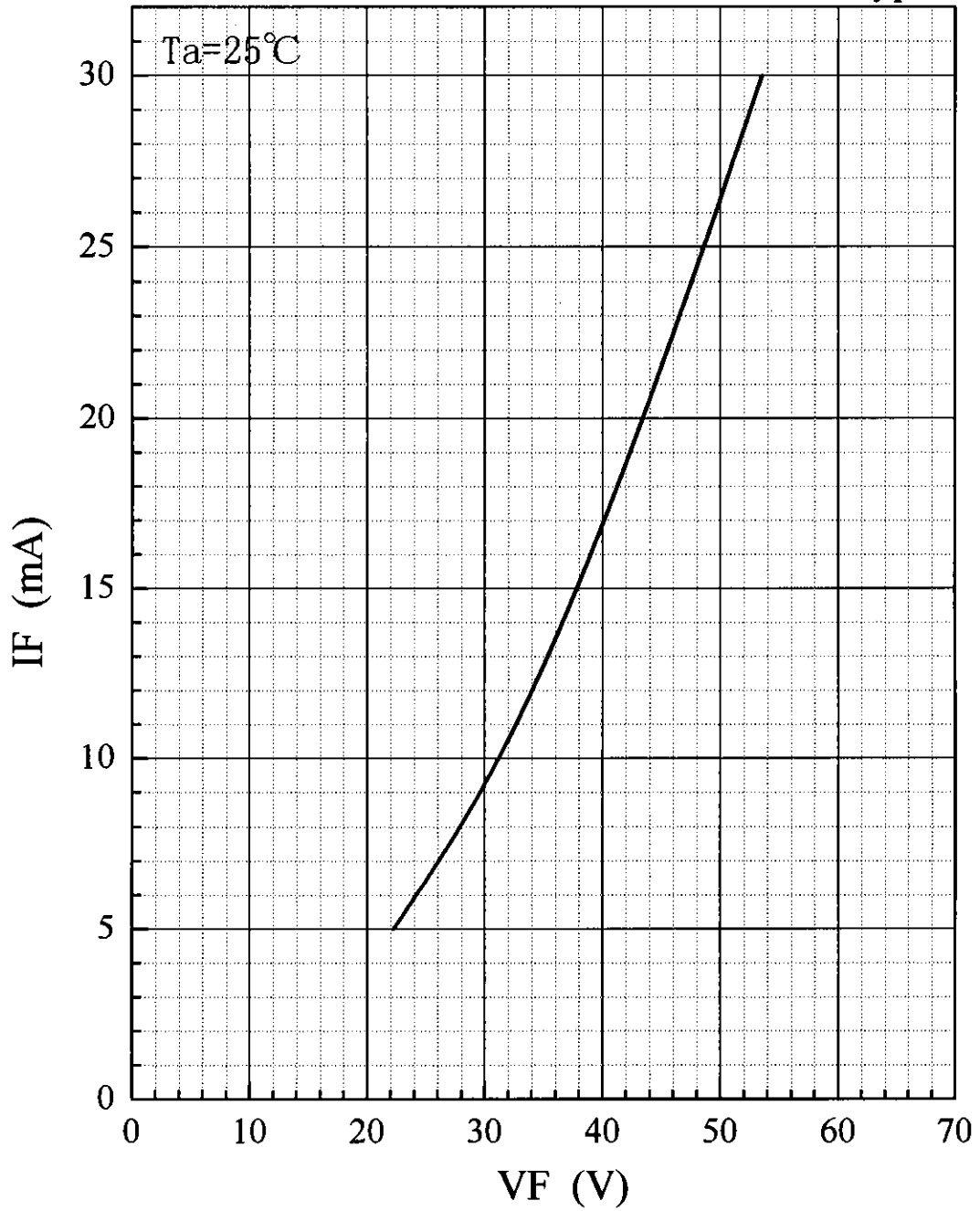


Fig.4 Reverse recovery time characteristic[ $T_a$ - $t_{rr}$ ]

Typical



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

Typical

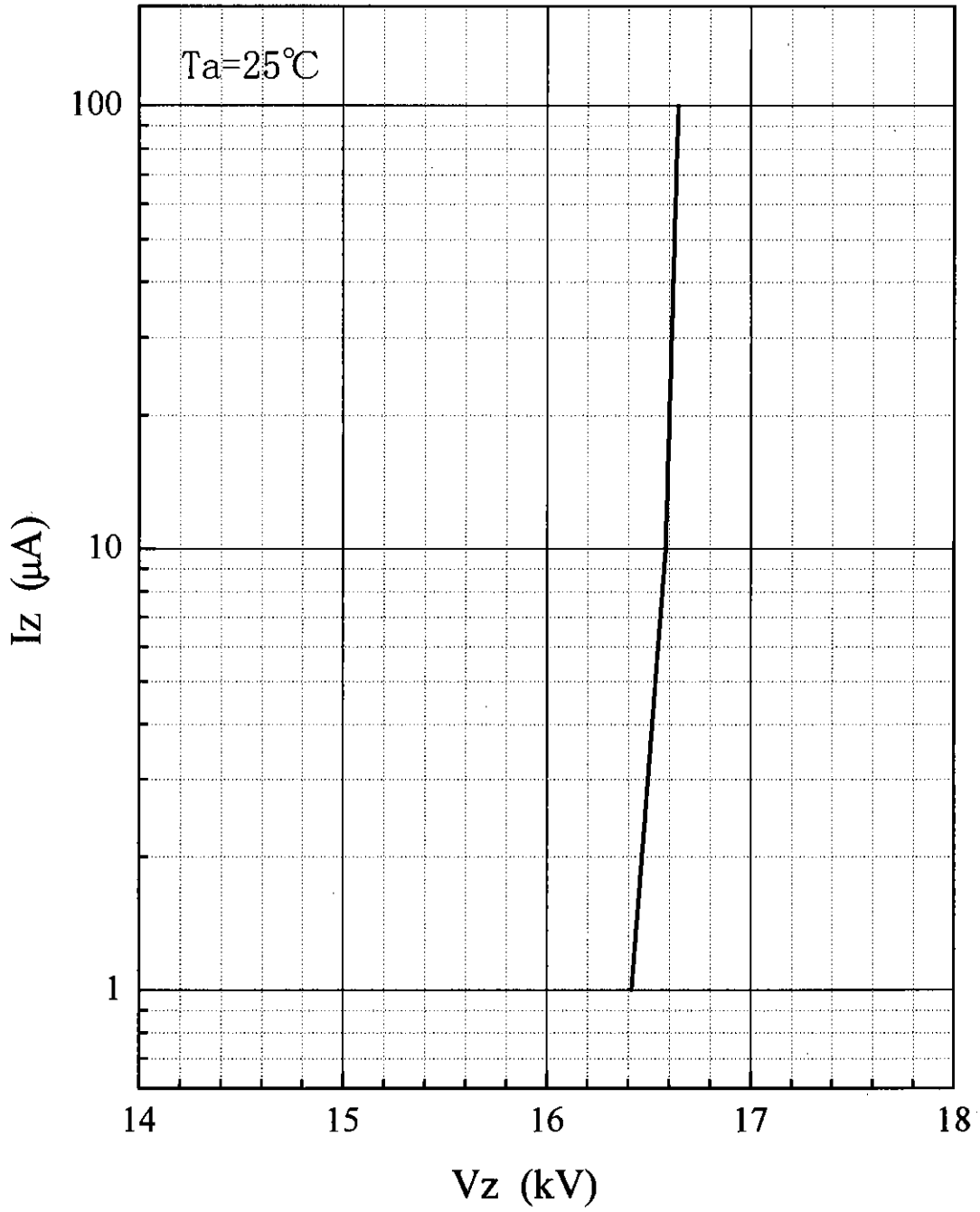


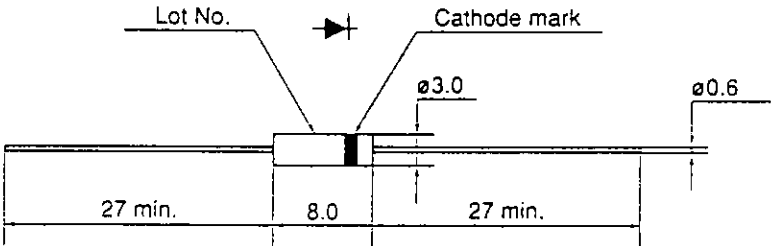
Fig.3 Avalanche characteristic [ $V_z$ - $I_z$ ]

Dimensions

Unit : mm

ESJA89-□□A

#



For more information, contact:

**Collmer Semiconductor, Inc.**

P.O. Box 702708

Dallas, TX 75370

972-233-1589

972-233-0481 Fax

<http://www.collmer.com>