

SPECIFICATION

DEVICE NAME : SILICON DIODE
 TYPE NAME : ERW06-060
 SPEC. No. :
 DATE :

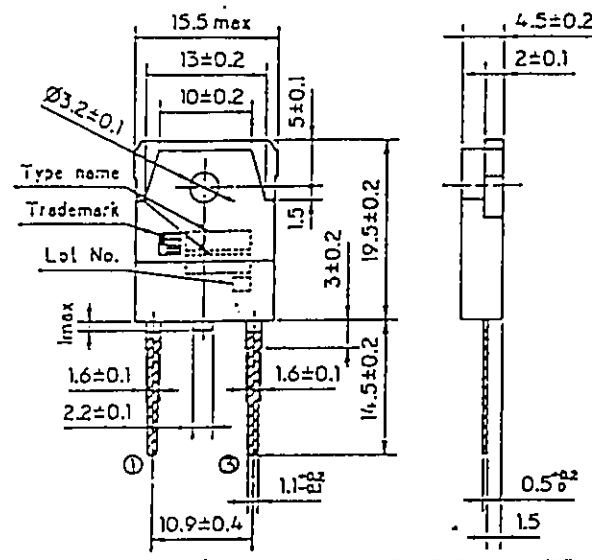
Fuji Electric Co., Ltd.

This Specification is subject to change without notice.

	DATE	NAME	APPROVED	Fuji Electric Co., Ltd.		
DRAWN				DWG. NO.		a
CHECKED	- -				1/6	

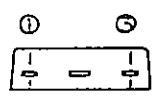
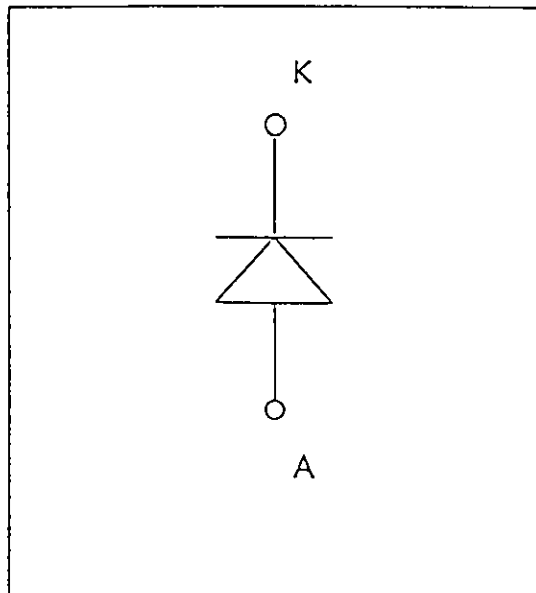
ERW06-060

1. Outline Drawing



DIMENSIONS ARE IN MILLIMETERS.

2. Equivalent circuit



CONNECTION

- ① CATHODE
- ② ANODE

JEDEC : TO-247
EIAJ : SC-65

3. Absolute maximum ratings (Tc=25°C)

Items	Symbols	Conditions	Ratings	Units
Repetitive Reverse Voltage	V_{RRM}	—————	600	V
Repetitive peak surge current	I_{FM}	20kHz Duty50% Squ. wave	Tc= 77°C 50	A
			Tc= 25°C 75	A
Average rectified forward current	$I_{F(AV)}$	D C	45	A
Non-repetitive peak surge current	I_{FSM}	Pulse10ms, sin wave	125	A
Maximam Power Dissipaion	P_D	—————	110	W
Operating Temperature	T_j	—————	+150	°C
Storage Temperature	T_{stg}	—————	-40 ~ +150	°C
Mounting Screw Torque	—	—————	50	N · cm

Fuji Electric Co.,Ltd

DWG.NO.

2/6

a1

4. Electrical Characteristics (at $T_c=25^{\circ}\text{C}$ unless otherwise specified)

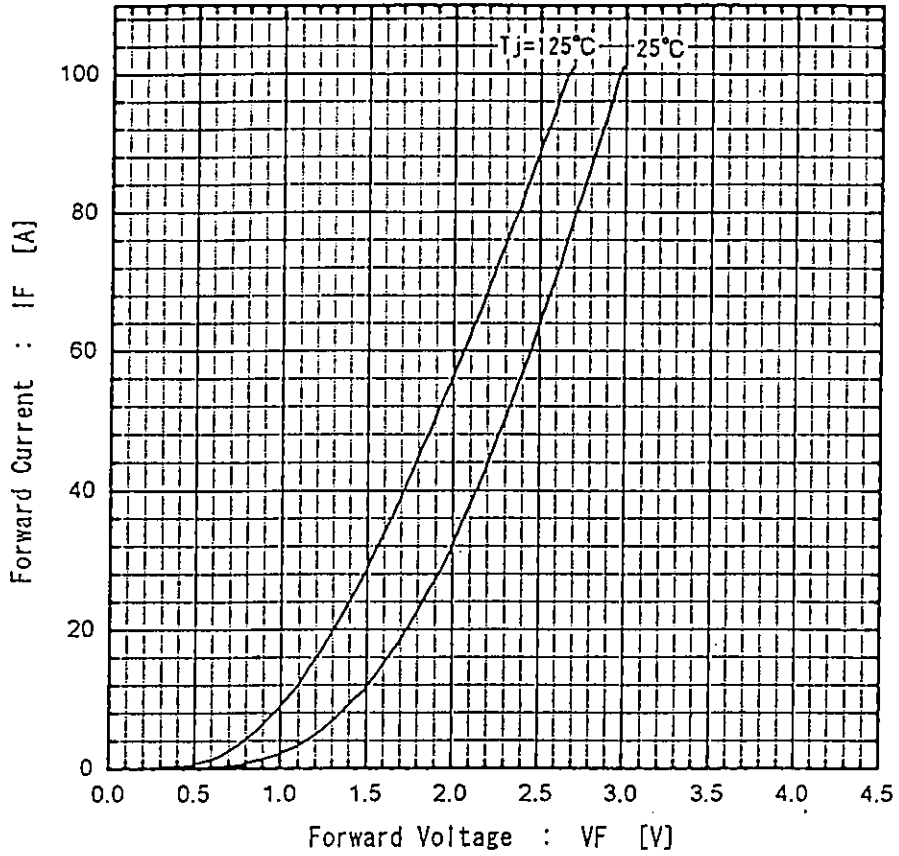
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Reverse Current	I_R	—	—	1.0	$V_R = 600 \text{ V}$	mA
forward voltage	V_F	—	—	3.0	$I_F = 50\text{A}$	V
Reverse recovery time	t_{rr}	—	—	0.3	$I_F=50\text{A}, V_R=200\text{V}$ $di/dt=100\text{A}/\mu\text{s}$	μS

5. Thermal resistance characteristics

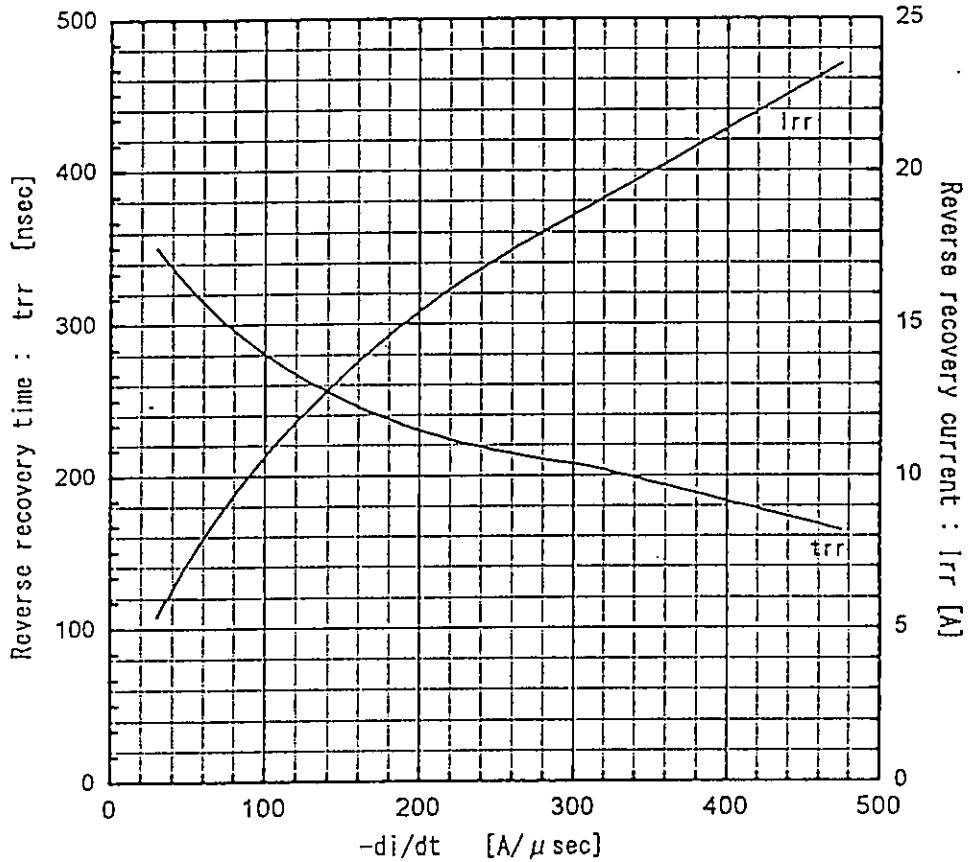
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Thermal resistance	$R_{th(j-c)}$	—	—	1.14	junction to case	$^{\circ}\text{C}/\text{W}$

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.

Forward voltage vs. Forward current



Reverse recovery characteristics vs. $-di/dt$
IF=50A, Tj=125°C



Fuji Electric Co., Ltd.

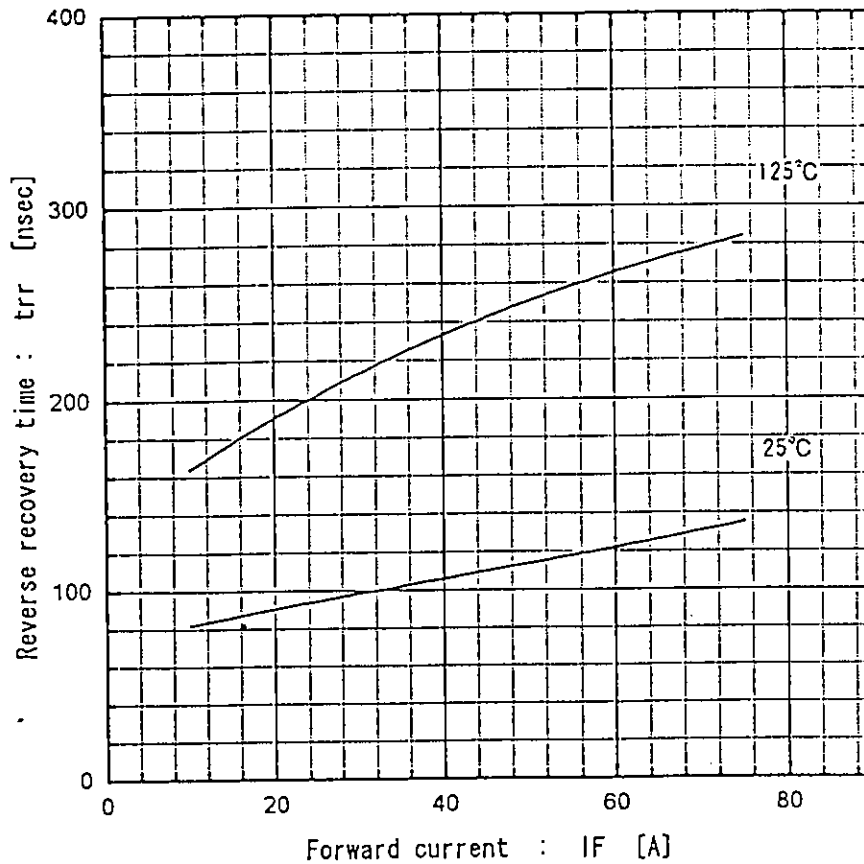
DWG. NO.

4/6

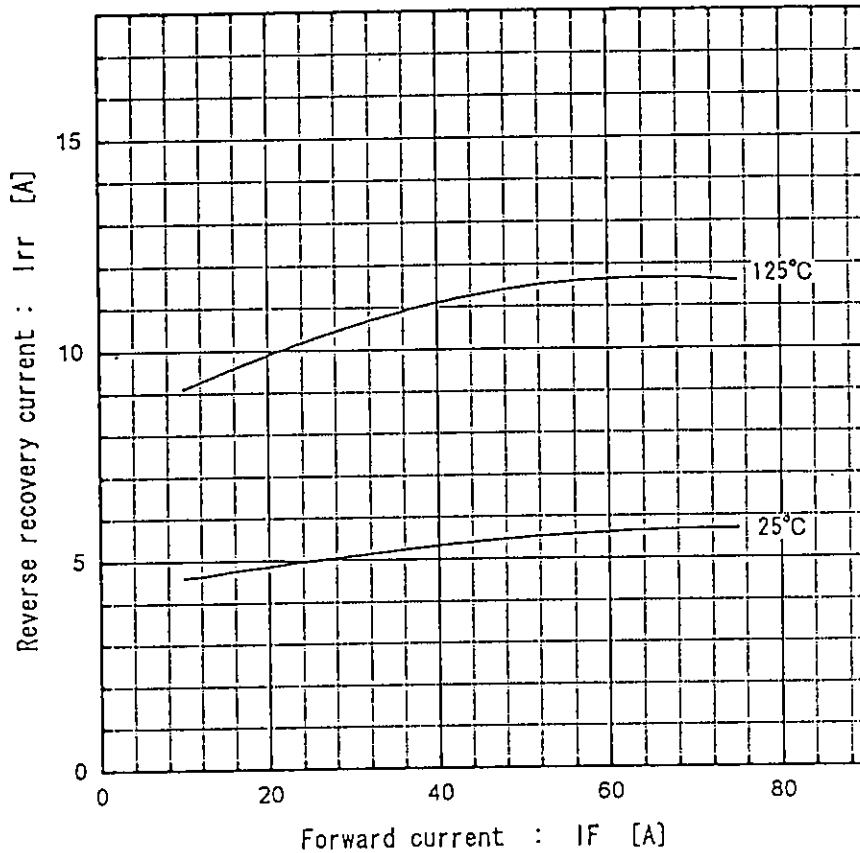
a

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.

Reverse recovery time vs. Forward current
 $V_R=200V, -di/dt=100A/\mu sec$



Reverse recovery current vs. Forward current
 $V_R=200V, -di/dt=100A/\mu sec$



Fuji Electric Co., Ltd.

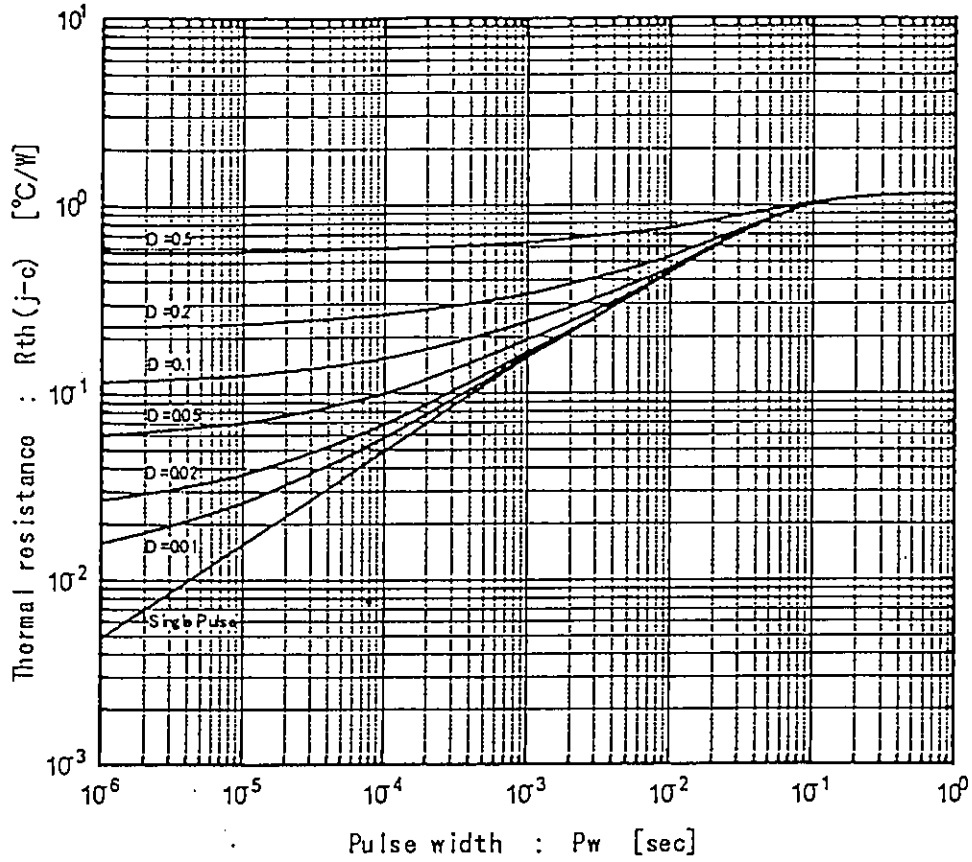
DWG. NO.

5/6

a

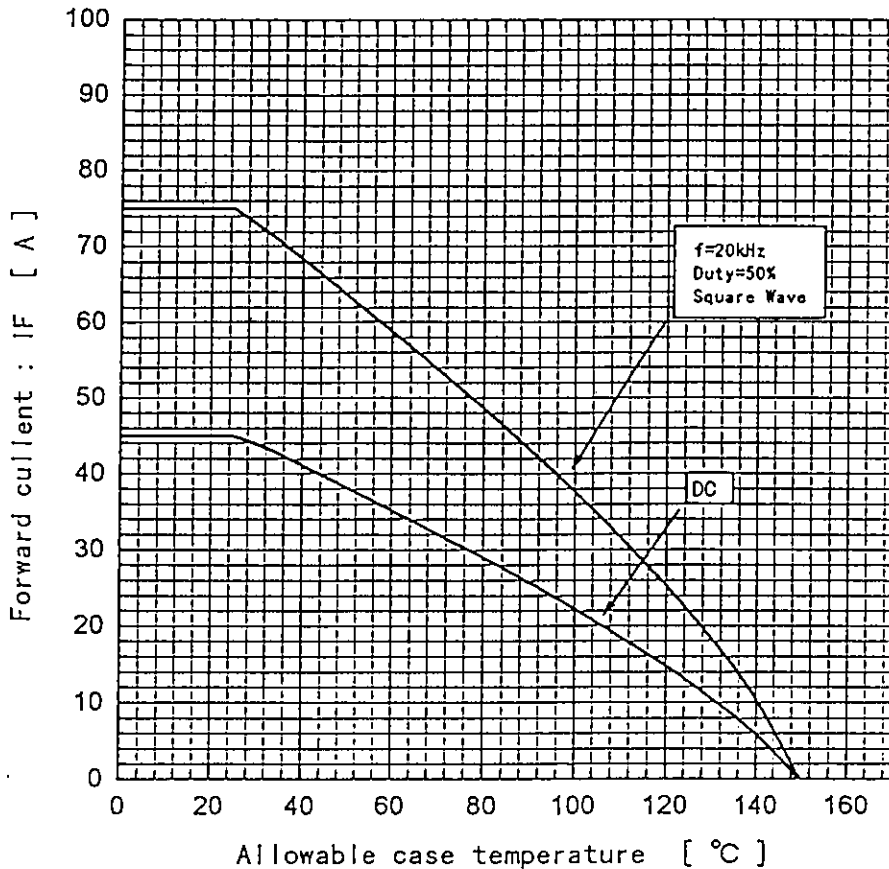
ERW06-060

Transient thermal resistance



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.

Forward current vs. Max. allowable case temperature



Fuji Electric Co., Ltd.

DWG. NO.

6/6

For more information, contact:

Collmer Semiconductor, Inc.

P.O. Box 702708

Dallas, TX 75370

972-733-1700

972-381-9991 Fax

<http://www.collmer.com>