

SPECIFICATION

DEVICE NAME : SILICON DIODE

TYPE NAME : ERW06-060

SPEC. No. :

DATE :

Fuji Electric Co.,Ltd.

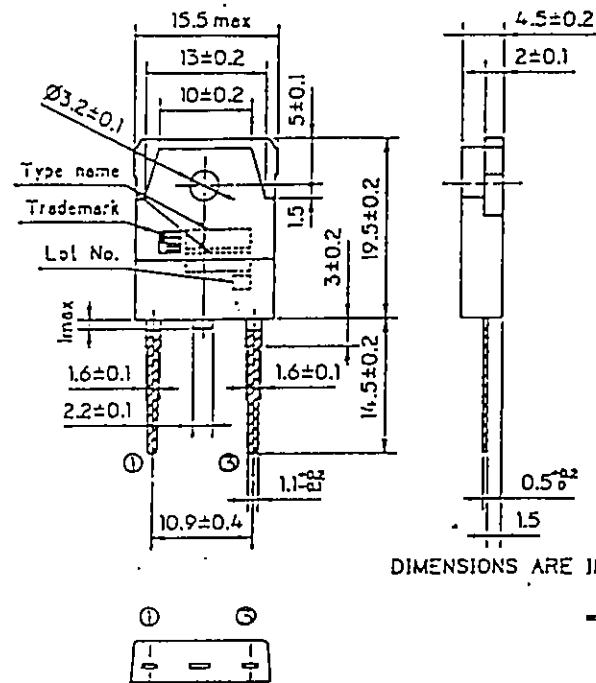
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	DATE	NAME	APPROVED	Fuji Electric Co.,Ltd.	
DRAWN				DWG.NO.	1/6
CHECKED					
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ERW06-060

1. Outline Drawing



DIMENSIONS ARE IN MILLIMETERS.

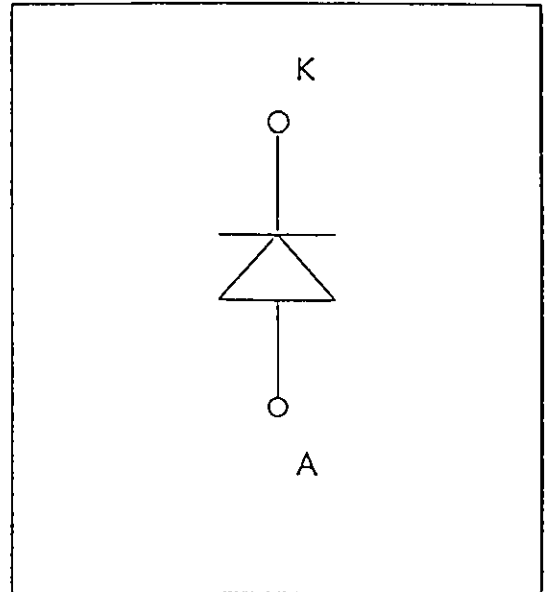
CONNECTION

- ① CATHODE
- ② ANODE

JEDEC : TO-247

EIAJ : SC-65

2. Equivalent circuit



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

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

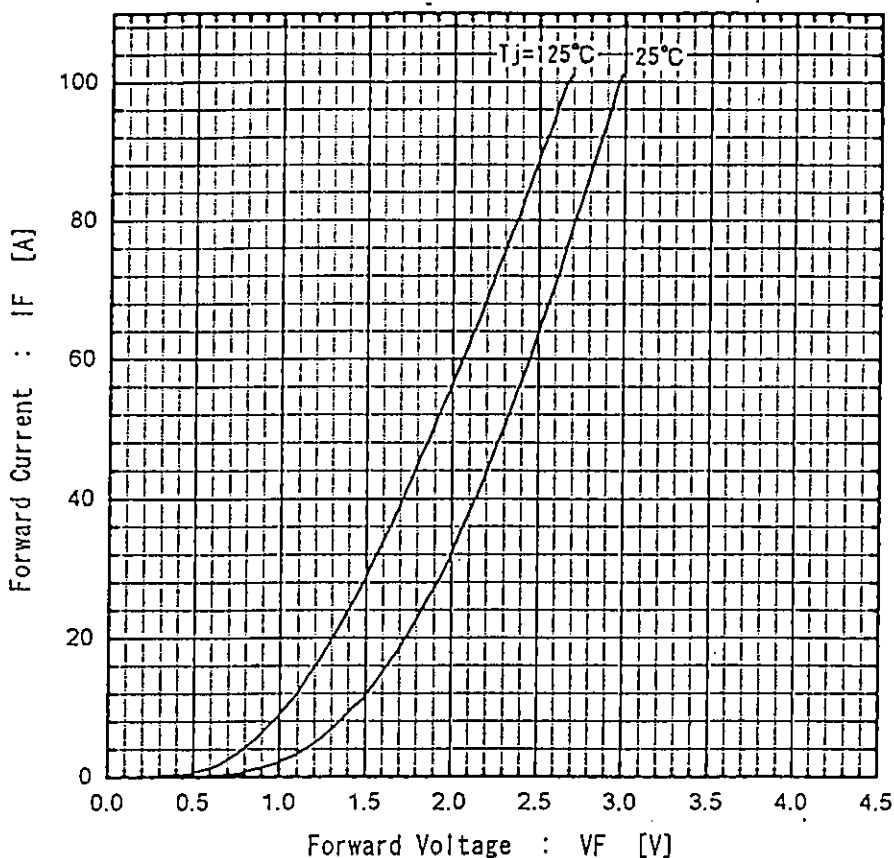
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Reverse Current	I_R	—	—	1.0	$V_R = 600 \text{ V}$	mA
forward voltage	VF	—	—	3.0	$I_F = 50\text{A}$	V
Reverse recovery time	t_{rr}	—	—	0.3	$I_F=50\text{A}, V_R=200\text{V}$ $di/dt=100\text{A}/\mu\text{s}$	μS

5. Thermal resistance characteristics

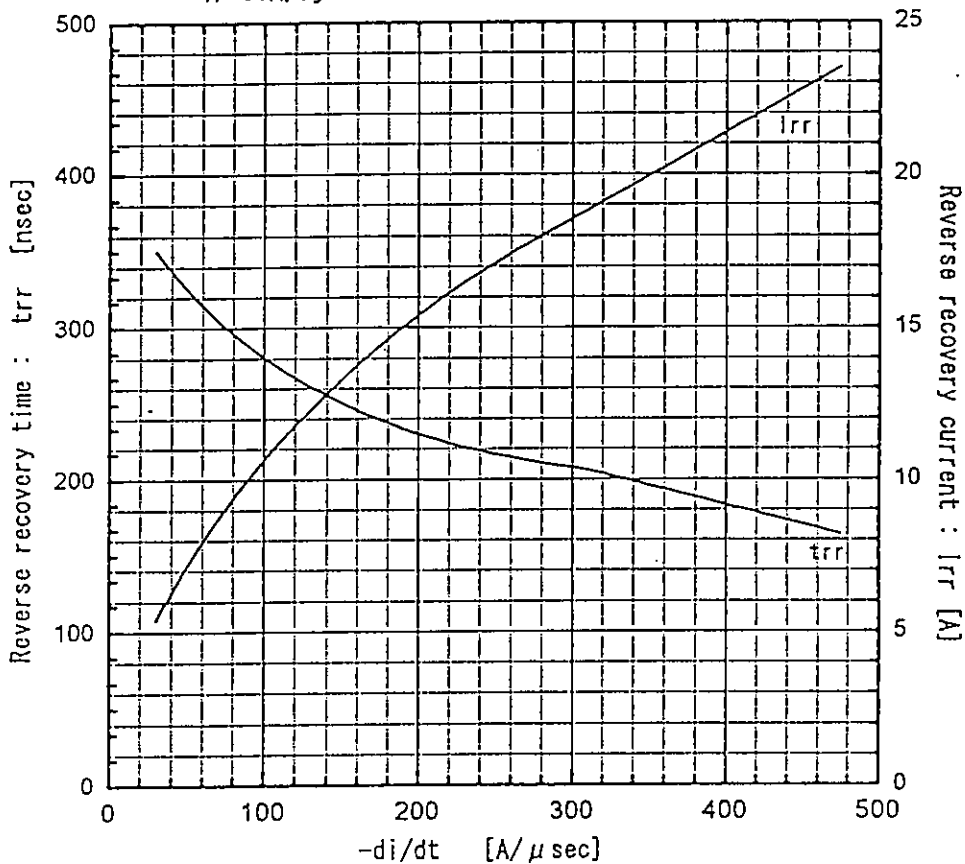
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Thermal resistance	$R_{th(j-c)}$	—	—	1.14	junction to case	$^{\circ}\text{C}/\text{W}$

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Forward voltage vs. Forward current

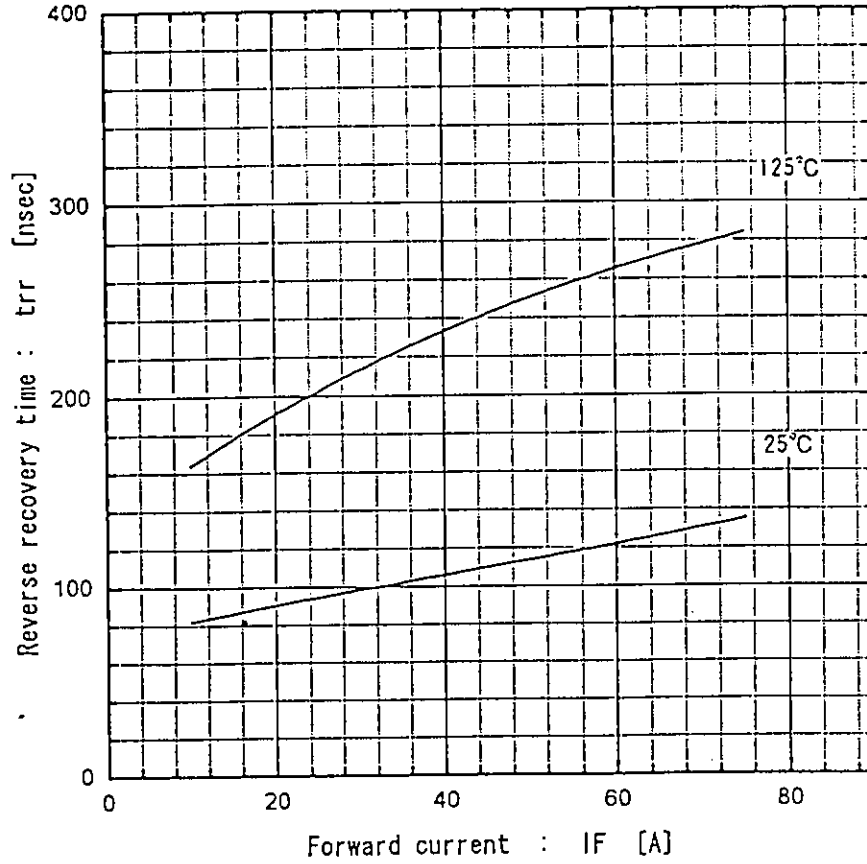


Reverse recovery characteristics vs. $-di/dt$
IF=50A, Tj=125°C

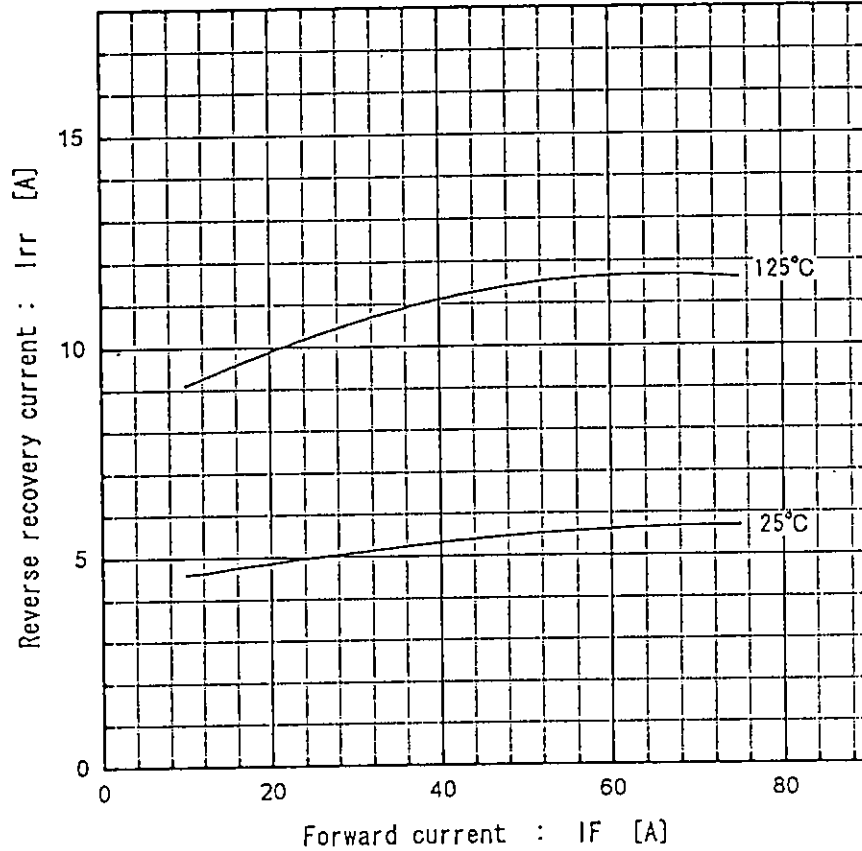


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Reverse recovery time vs. Forward current
 $V_R=200V, -di/dt=100A/\mu sec$

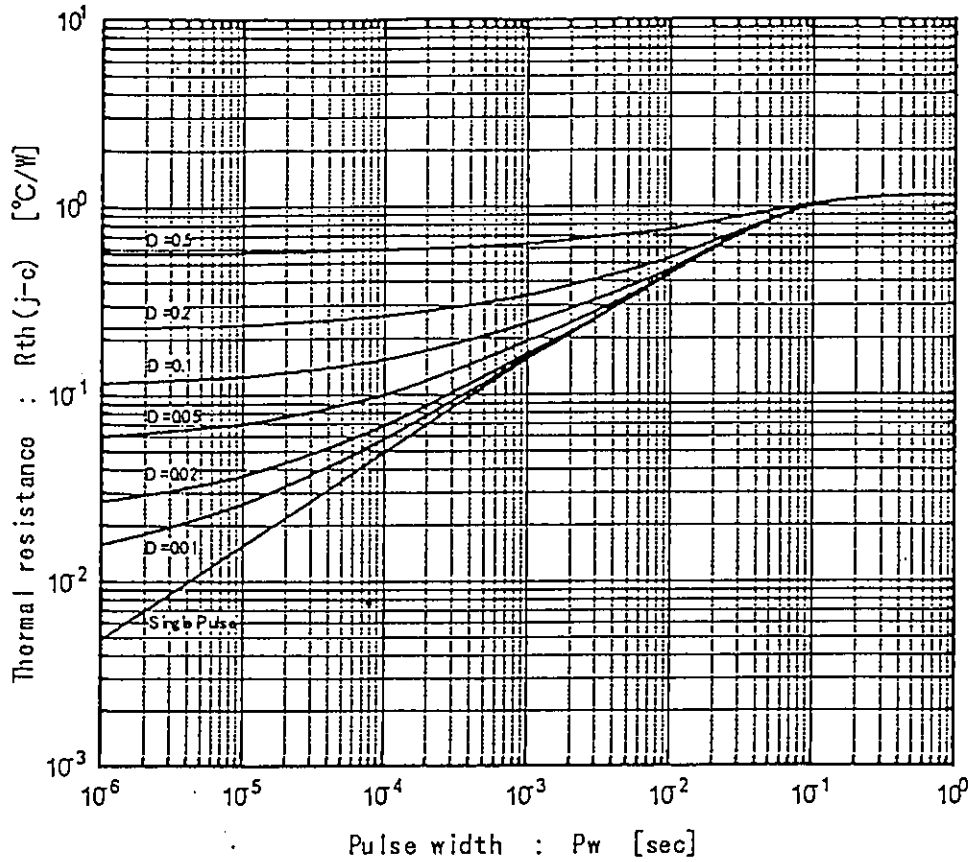


Reverse recovery current vs. Forward current
 $V_R=200V, -di/dt=100A/\mu sec$



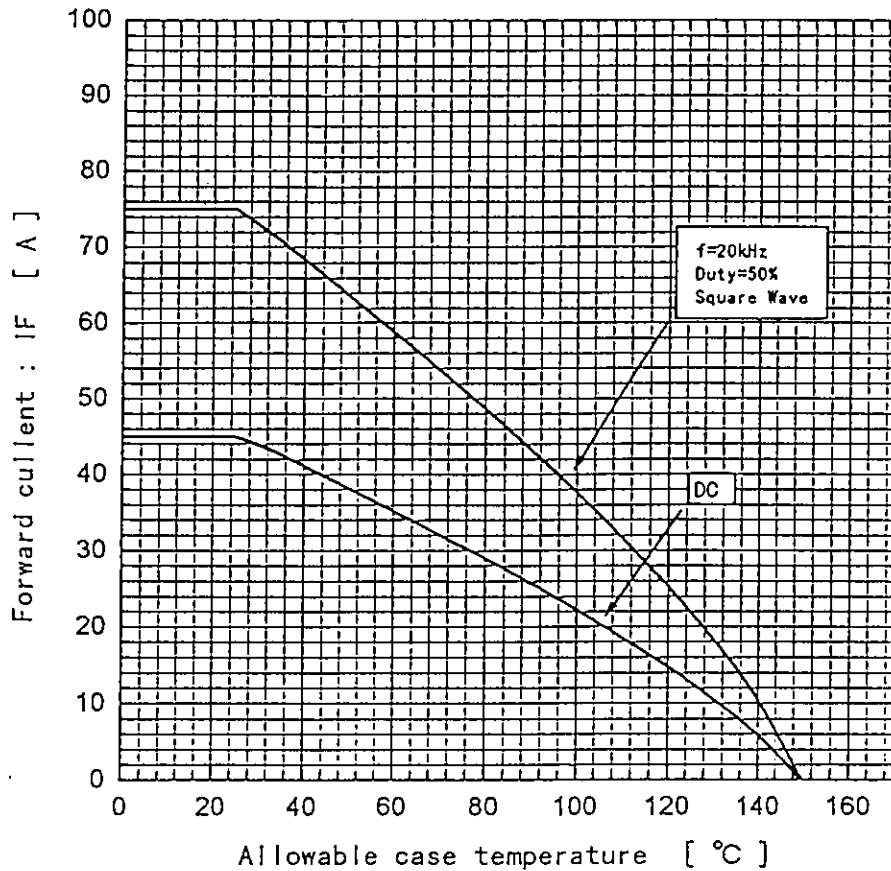
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Transient thermal resistance



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Forward current vs. Max. allowable case temperature



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