

SPECIFICATION

DEVICE NAME : SILICON DIODE

TYPE NAME : ERW07-120

SPEC. No. _____ :

DATE :

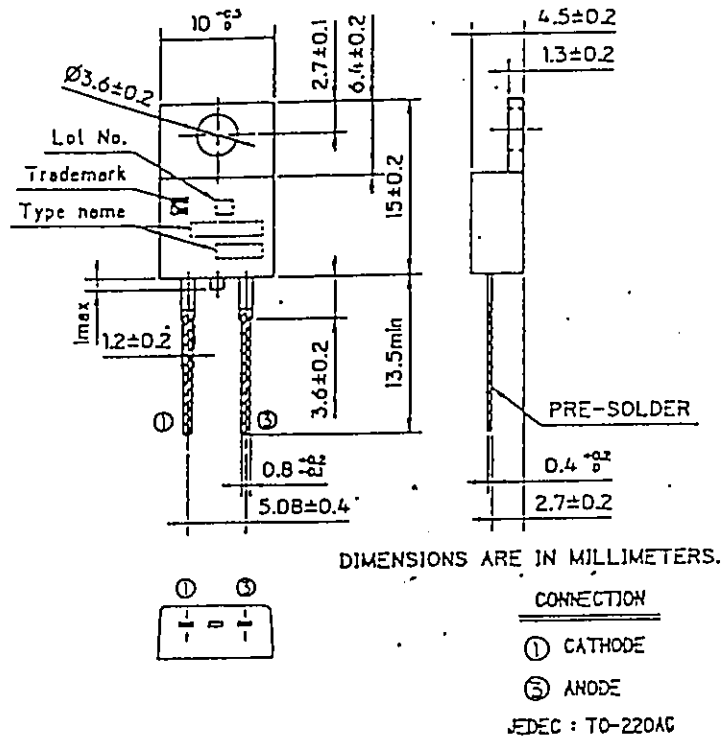
F u j i E l e c t r i c Co., Ltd.

This Specification is subject to change without notice.

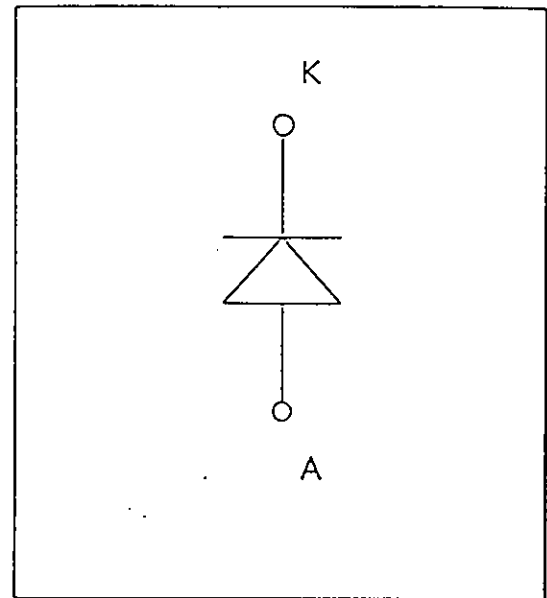
	DATE	NAME	APPROVED	Fuji Electric Co., Ltd.			
DRAWN				DWG. NO.		1/6	A
CHECKED	- -						

ERW07-120

1. Outline Drawing



2. Equivalent circuit

3. Absolute maximum ratings ($T_c=25^\circ\text{C}$)

Items	Symbols	Conditions	Ratings	Units
Repetitive Reverse Voltage	V_{RRM}		1200	V
Repetitive peak surge current	I_{FM}	20kHz : Duty50% Squ. wave	$T_c=129^\circ\text{C}$ 2.5	A
			$T_c=25^\circ\text{C}$ 9.5	A
Average rectified forward current	$I_{F(AV)}$	D C	2.5	A
Non-repetitive peak surge current	I_{FSM}	Pulse10ms, sin wave	30	A
Maximam Power Dissipaion	P_D		20	W
Operating Temperature	T_j		+150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-40 ~ +150	$^\circ\text{C}$
Mounting Screw Torque			50	N · cm

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

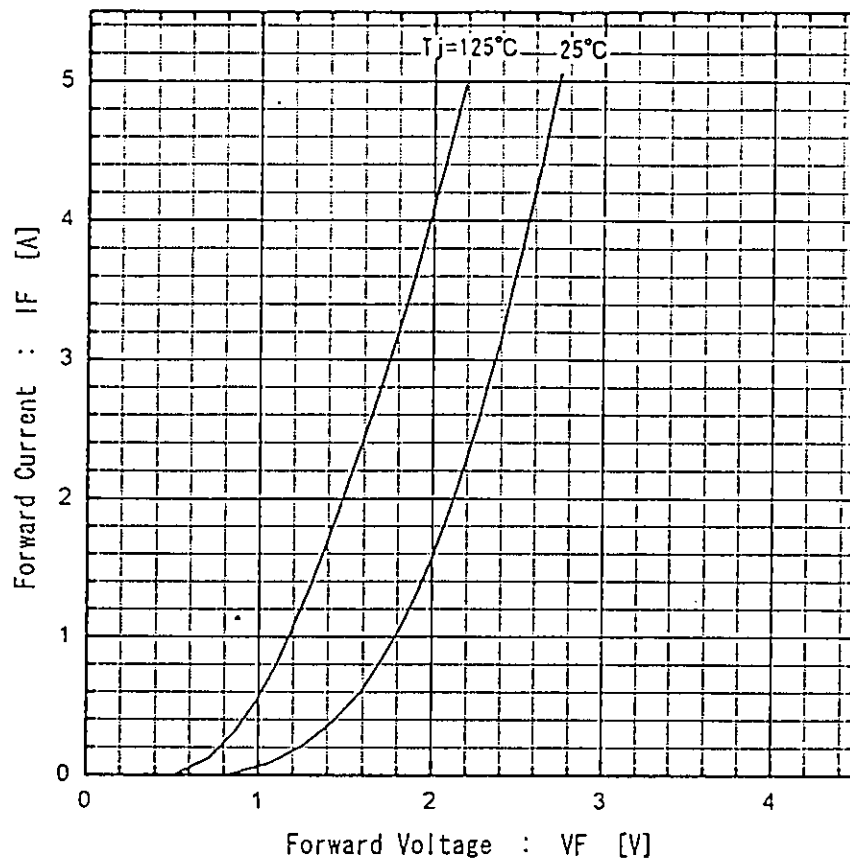
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Reverse Current	I_R	—	—	1.0	$V_R = 1200\text{V}$	mA
forward voltage	V_F	—	—	3.0	$I_F = 2.5\text{A}$	V
Reverse recovery time	t_{rr}	—	—	0.3	$I_F=2.5\text{A}, V_R=200\text{V}$ $di/dt=100\text{A}/\mu\text{s}$	μs

5. Thermal resistance characteristics

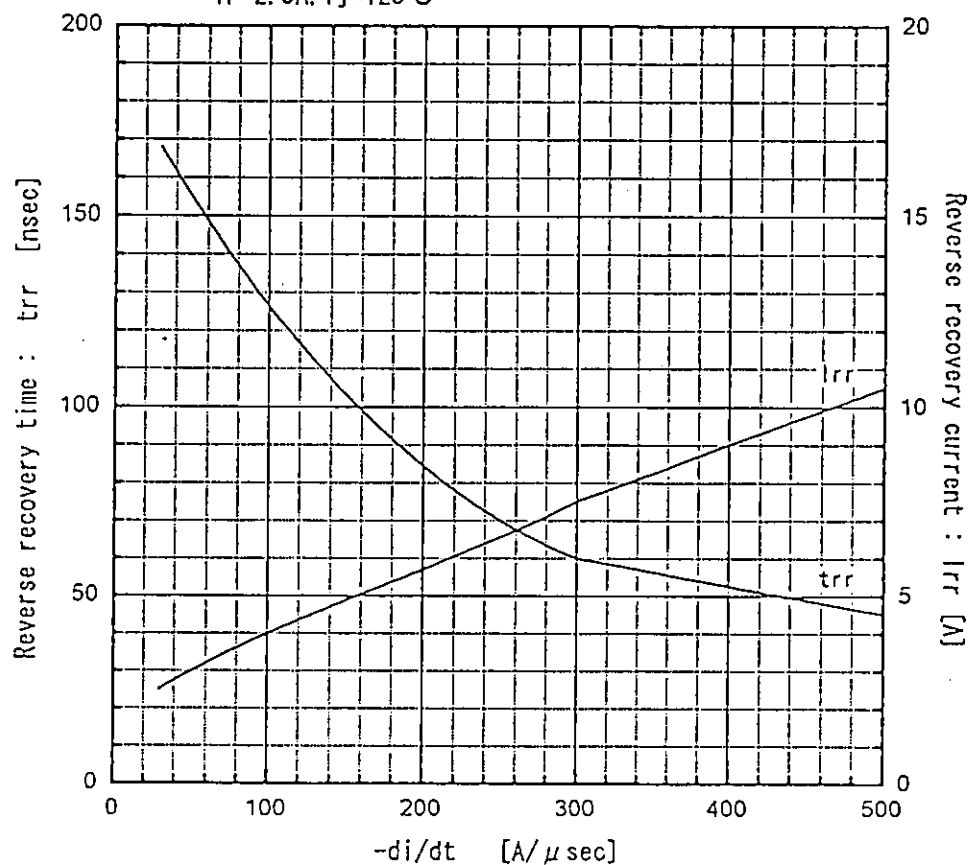
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Thermal resistance	$R_{th(j-c)}$	—	—	6.25	junction to case	$^{\circ}\text{C}/\text{W}$

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Forward voltage vs. Forward current

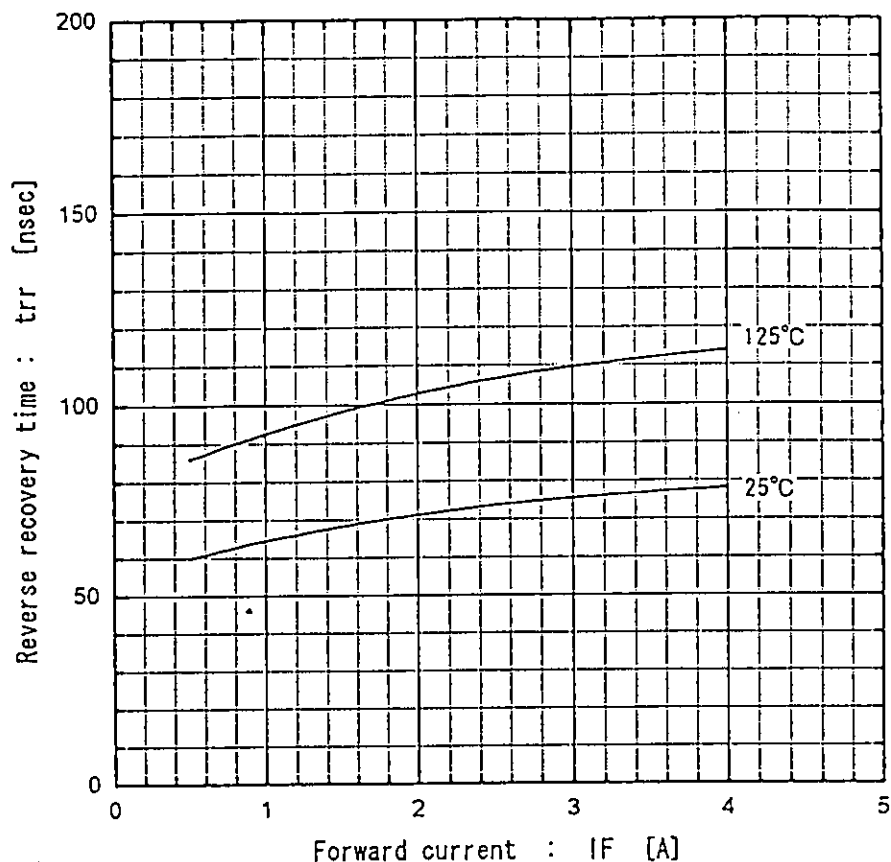


Reverse recovery characteristics vs. $-di/dt$
 $I_F = 2.5\text{A}$, $T_j = 125^\circ\text{C}$

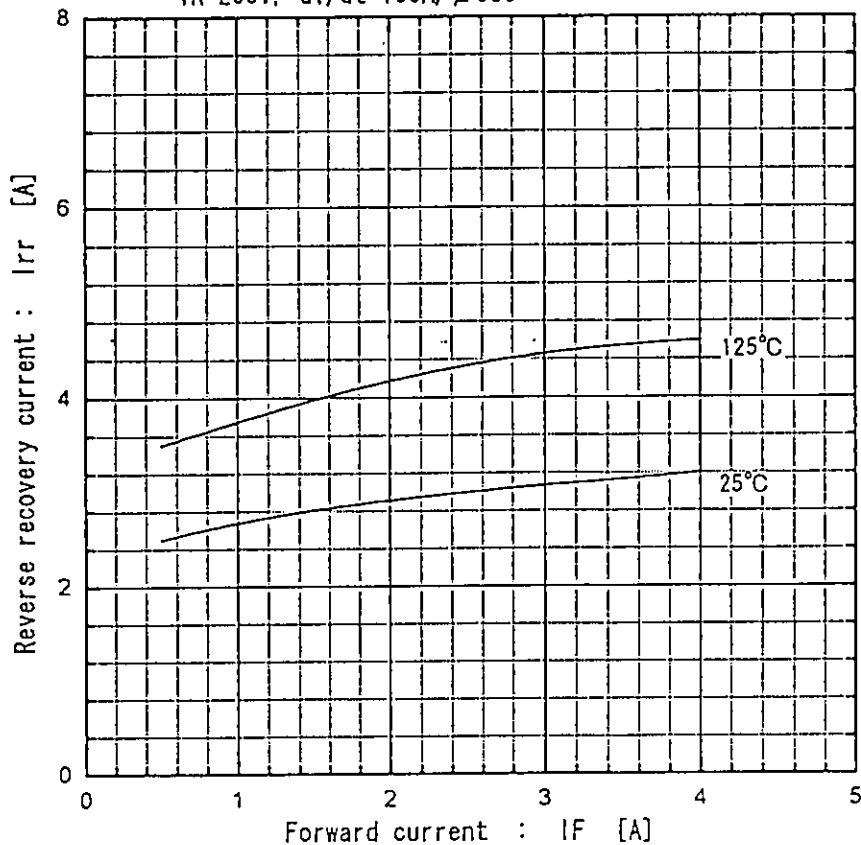


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Reverse recovery time vs. Forward current
 $V_R=200V, -di/dt=100A/\mu sec$

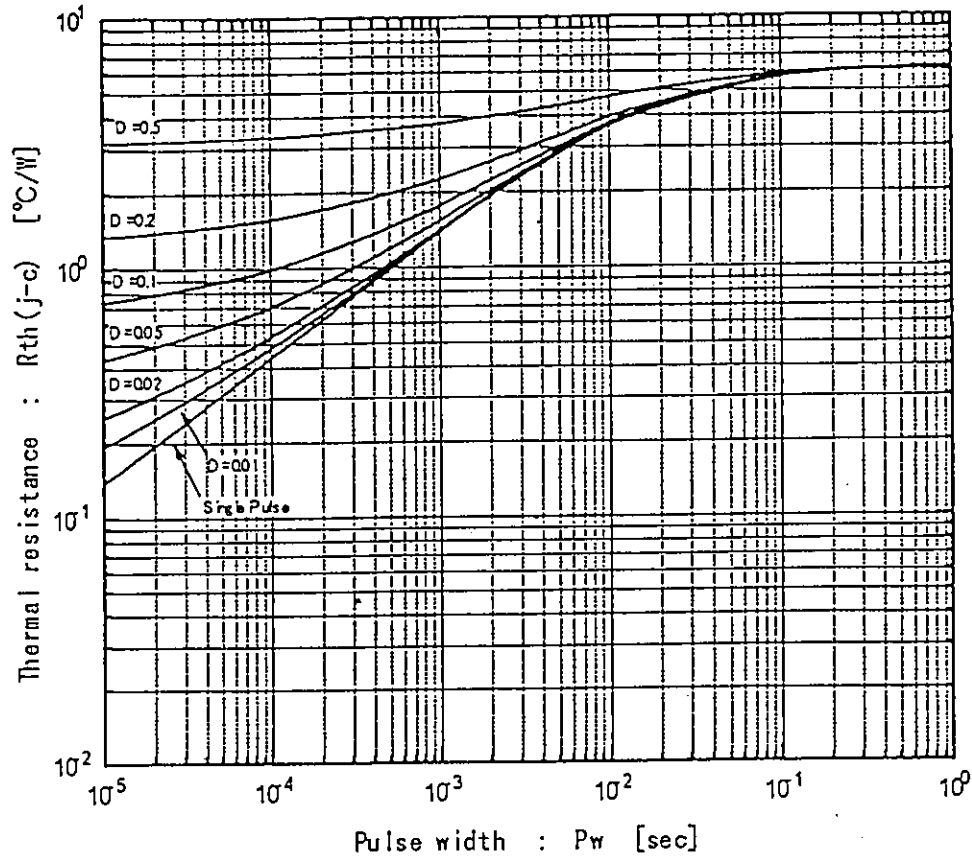


Reverse recovery current vs. Forward current
 $V_R=200V, -di/dt=100A/\mu sec$

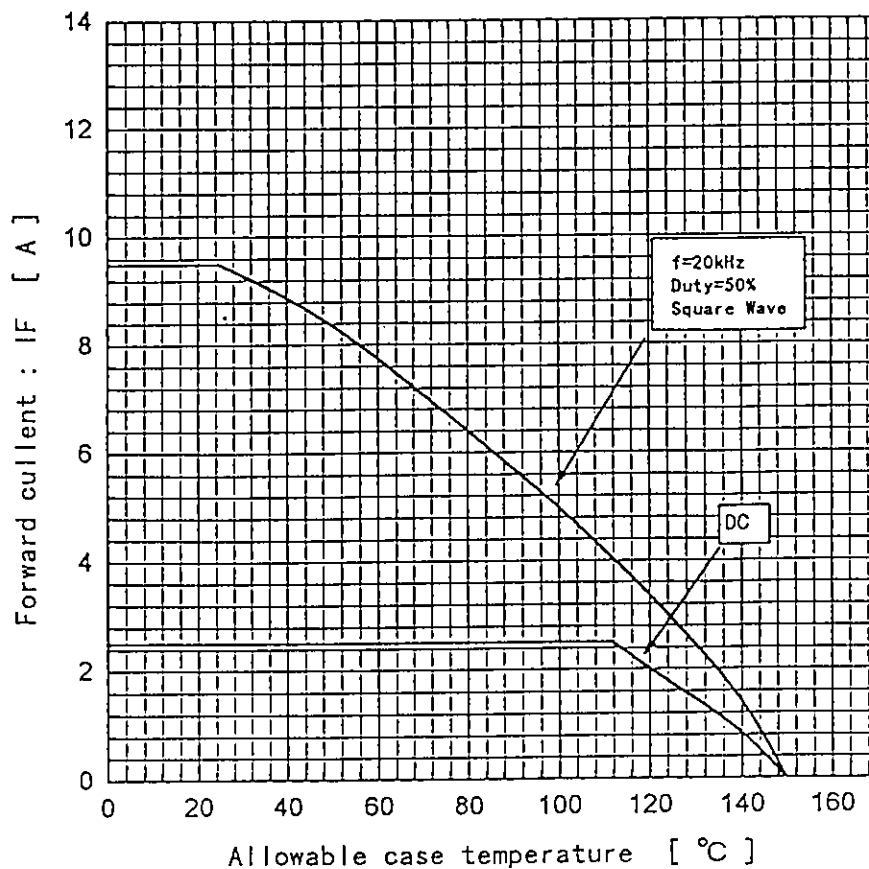


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Transient thermal resistance



Forward current vs. Max. allowable case temperature



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