

# SPECIFICATION

DEVICE NAME : SILICON DIODE  
 TYPE NAME : ERW08-120  
 SPEC. No. : \_\_\_\_\_  
 DATE : \_\_\_\_\_

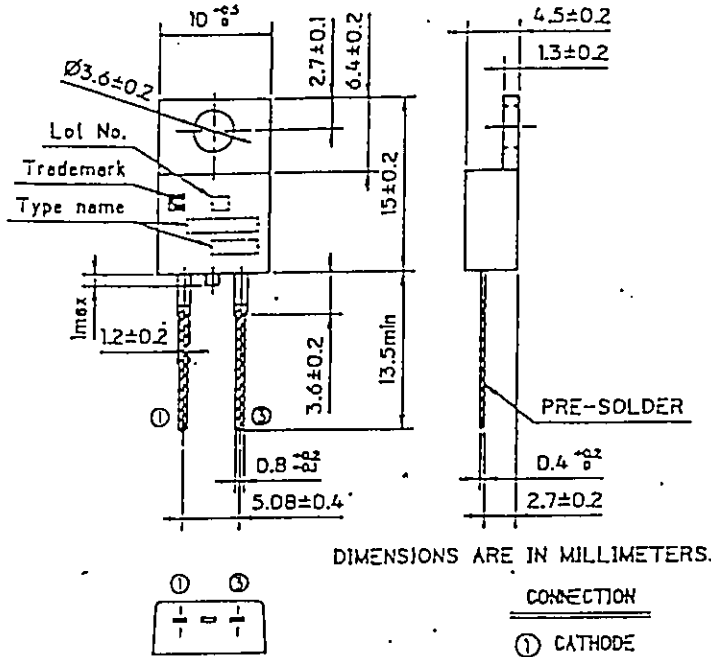
Fuji Electric Co.,Ltd.

This Specification is subject to change without notice.

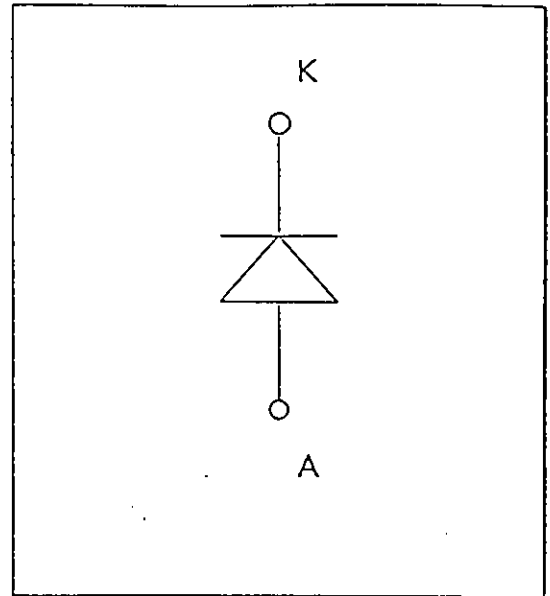
	DATE	NAME	APPROVED	<b>Fuji Electric Co.,Ltd</b>		
DRAWN			_____	DWG.NO.	1/6	a
CHECKED	- -					

ERW08-120

1. Outline Drawing



2. Equivalent circuit



CONNECTION

① CATHODE  
② ANODE

JEDEC : TO-220AC

3. Absolute maximum ratings ( Tc=25°C )

Items	Symbols	Conditions	Ratings	Units
Repetitive Reverse Voltage	$V_{RRM}$	—————	1200	V
Repetitive peak surge current	$I_{FM}$	20kHz Duty50% Squ. wave	Tc=127°C 5	A
			Tc= 25°C 18	A
Average rectified forward current	$I_{F(AV)}$	D C	5	A
Non-repetitive peak surge current	$I_{FSM}$	Pulse10ms, sin wave	50	A
Maximam Power Dissipaion	$P_D$	—————	35	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 )

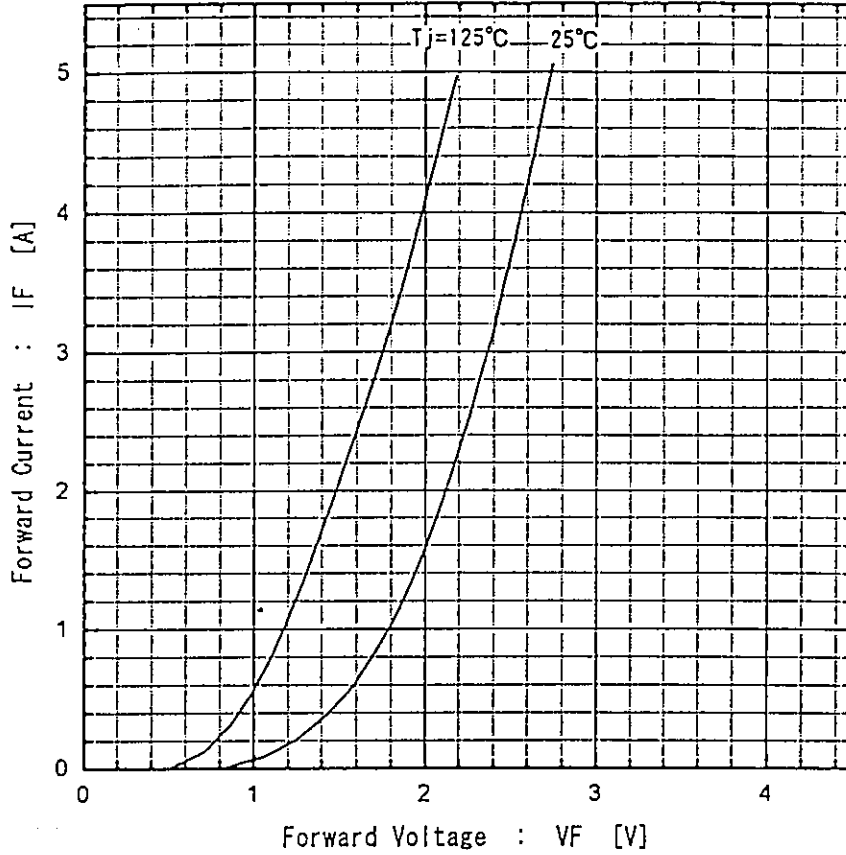
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Reverse Current	$I_R$	—	—	1.0	$V_R = 1200\text{V}$	mA
forward voltage	VF	—	—	3.0	$I_F = 5\text{A}$	V
Reverse recovery time	$t_{rr}$	—	—	0.3	$I_F = 5\text{A}, V_R = 200\text{V}$ $di/dt = 100\text{A}/\mu\text{s}$	$\mu\text{s}$

5. Thermal resistance characteristics

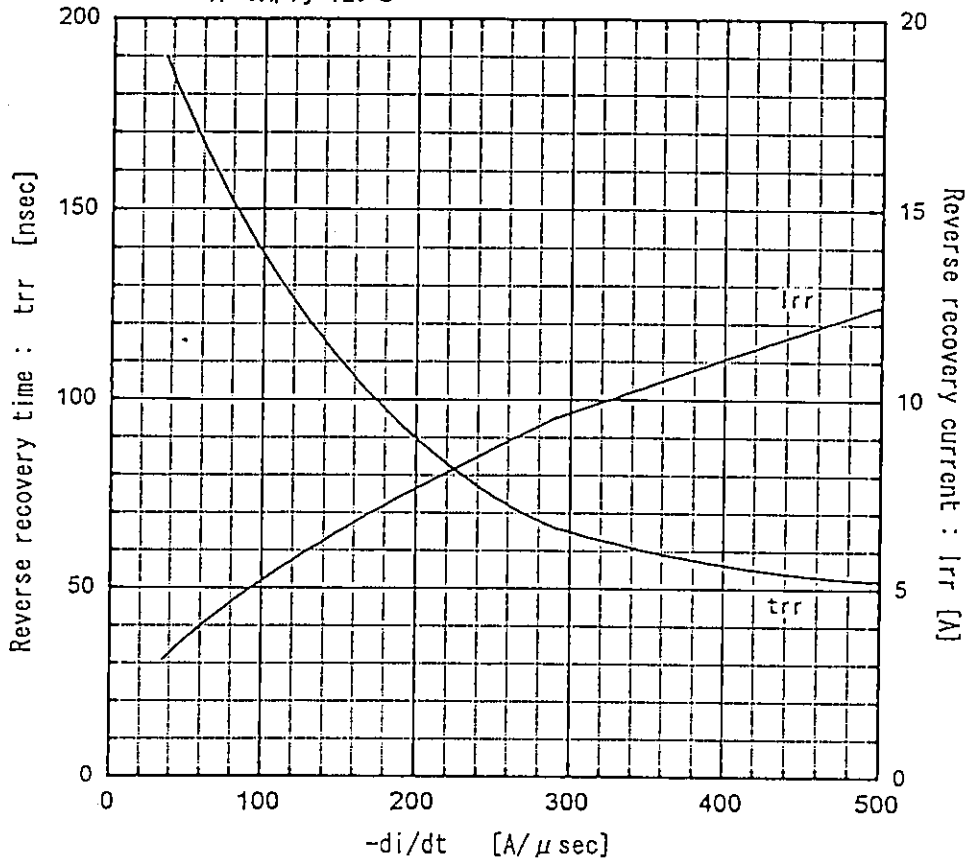
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Thermal resistance	$R_{th(j-c)}$	—	—	4.16	junction to case	$^{\circ}\text{C}/\text{W}$

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Forward voltage vs. Forward current



Reverse recovery characteristics vs.  $-di/dt$   
 $I_F=5A, T_j=125^\circ C$



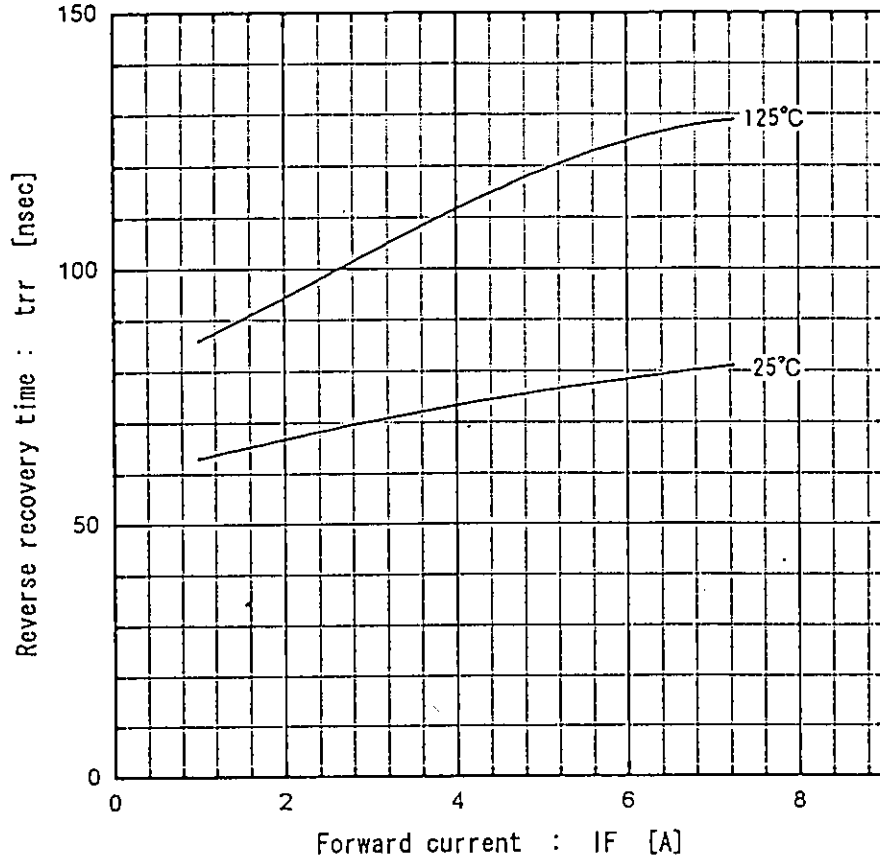
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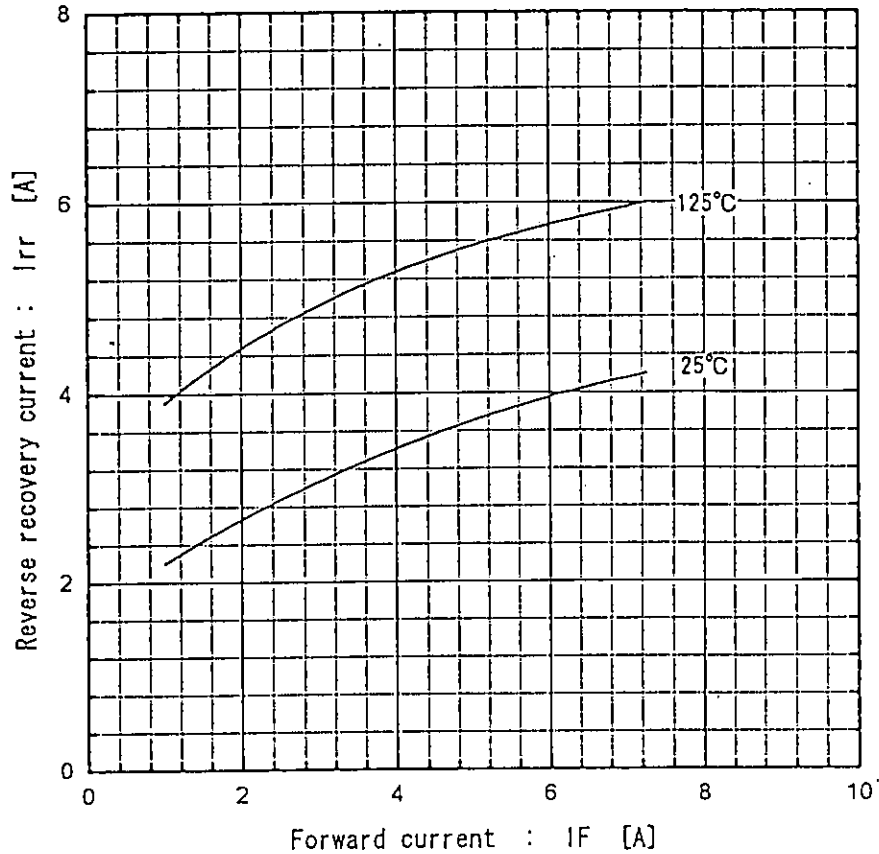
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Reverse recovery time vs. Forward current  
 $VR=200V, -di/dt=100A/\mu sec$



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



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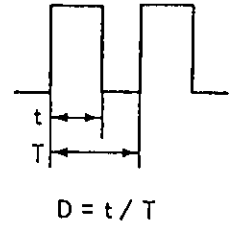
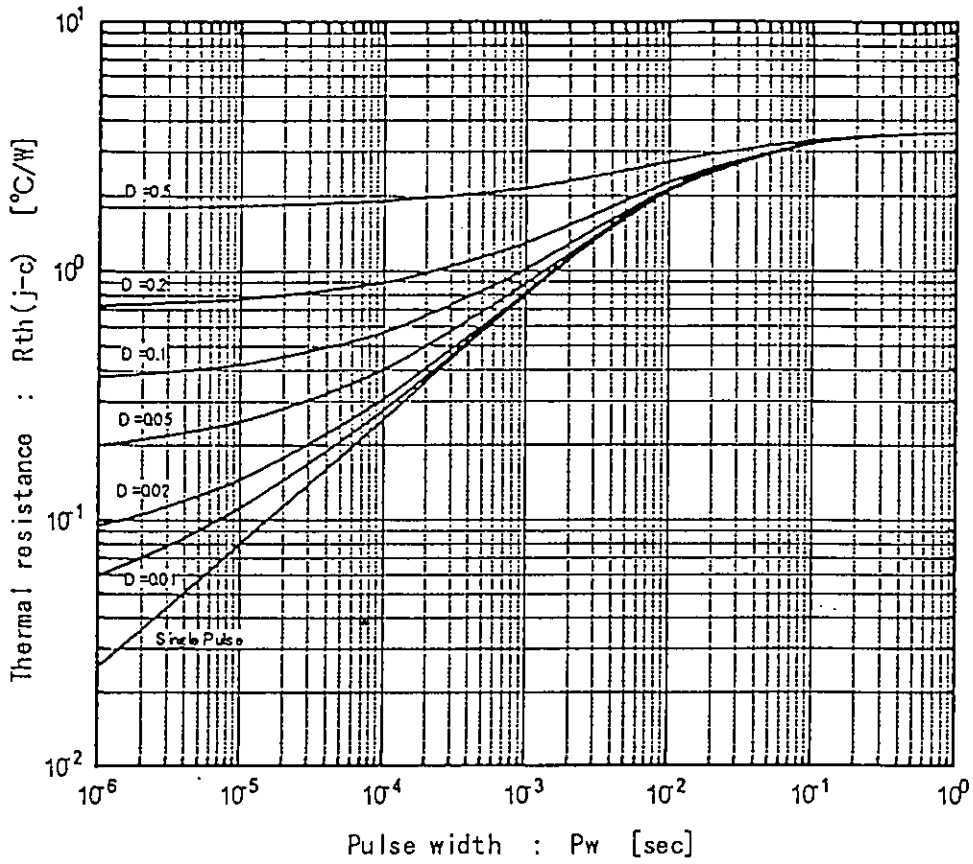
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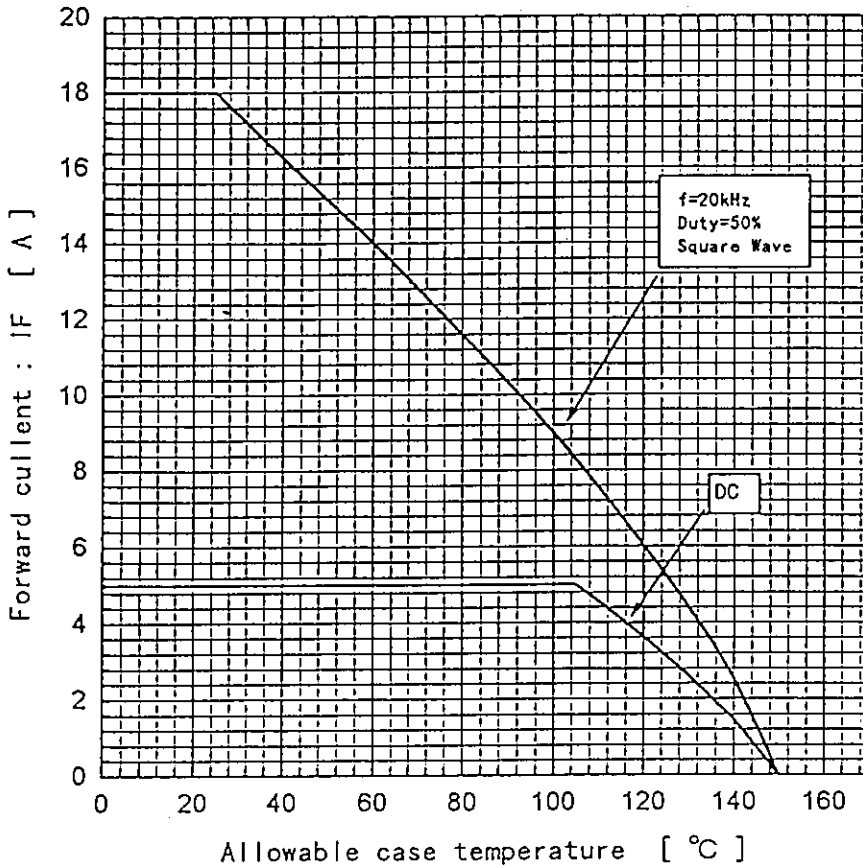
ERW08-120

Transient thermal resistance



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Forward current vs. Max. allowable case temperature



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