

# SPECIFICATION

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

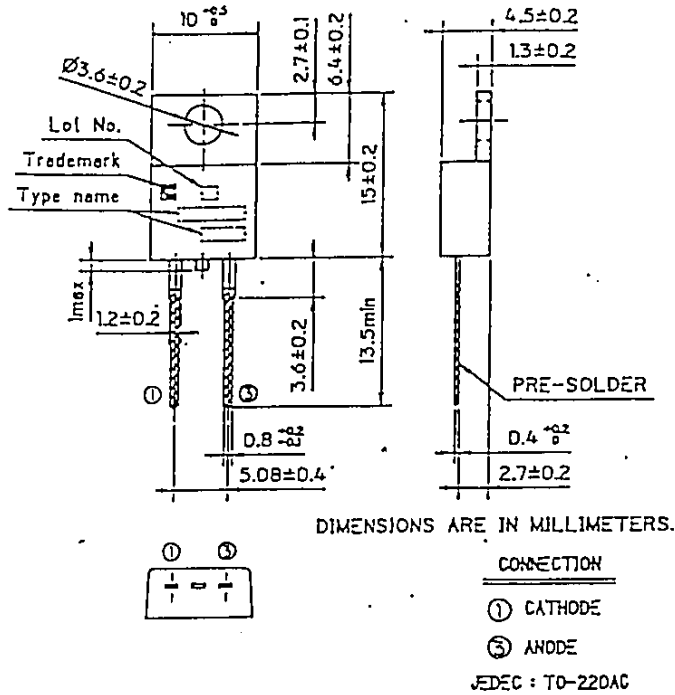
Fuji Electric Co.,Ltd.

This Specification is subject to change without notice.

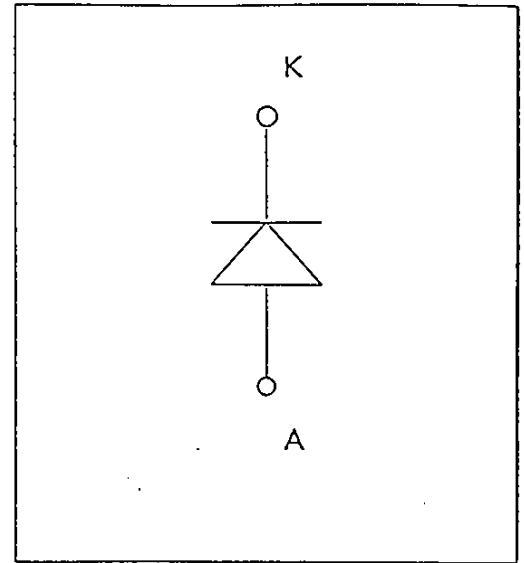
	DATE	NAME	APPROVED	Fuji Electric Co.,Ltd		
DRAWN			—	DWG.NO.	1/6	a
CHECKED	- -					

ERW08-120

1. Outline Drawing



2. Equivalent circuit



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	$I_{F(AV)}$	DC	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 Tc=25°C unless otherwise specified )

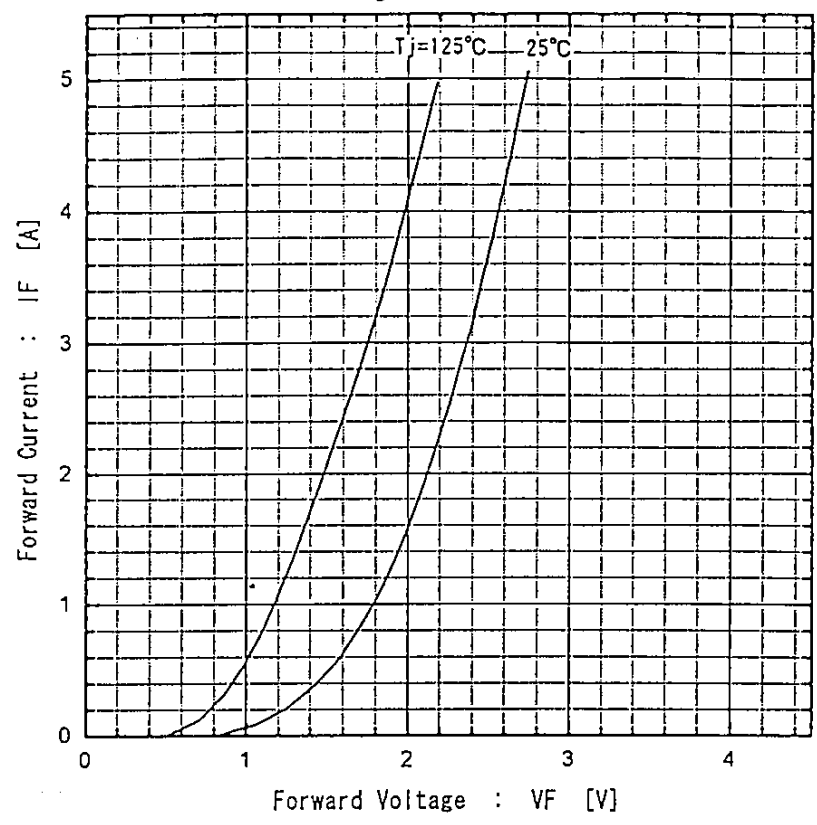
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Reverse Current	$I_R$	—	—	1.0	$V_R = 1200V$	mA
forward voltage	$V_F$	—	—	3.0	$I_F = 5A$	V
Reverse recovery time	$t_{rr}$	—	—	0.3	$I_F = 5A, V_R = 200V$ $di/dt = 100A/\mu s$	$\mu s$

5. Thermal resistance characteristics

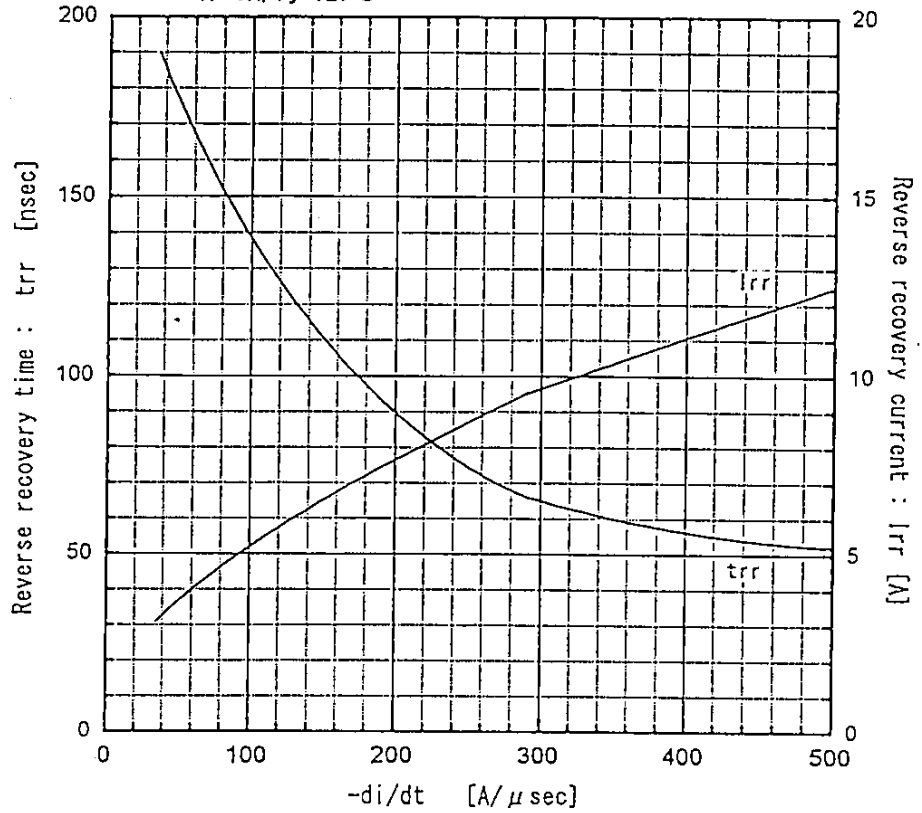
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Thermal resistance	$R_{th(j-c)}$	—	—	4.16	junction to case	$^{\circ}C/W$

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.  $-di/dt$   
 $IF=5A, Tj=125^\circ C$



Fuji Electric Co., Ltd.

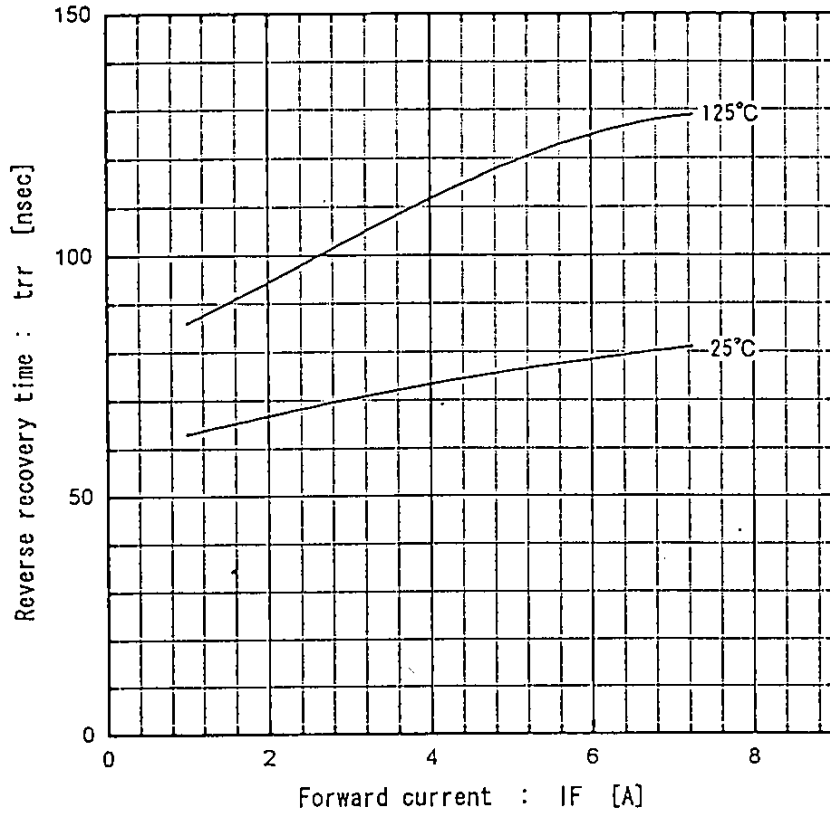
DWG. NO.

4/6

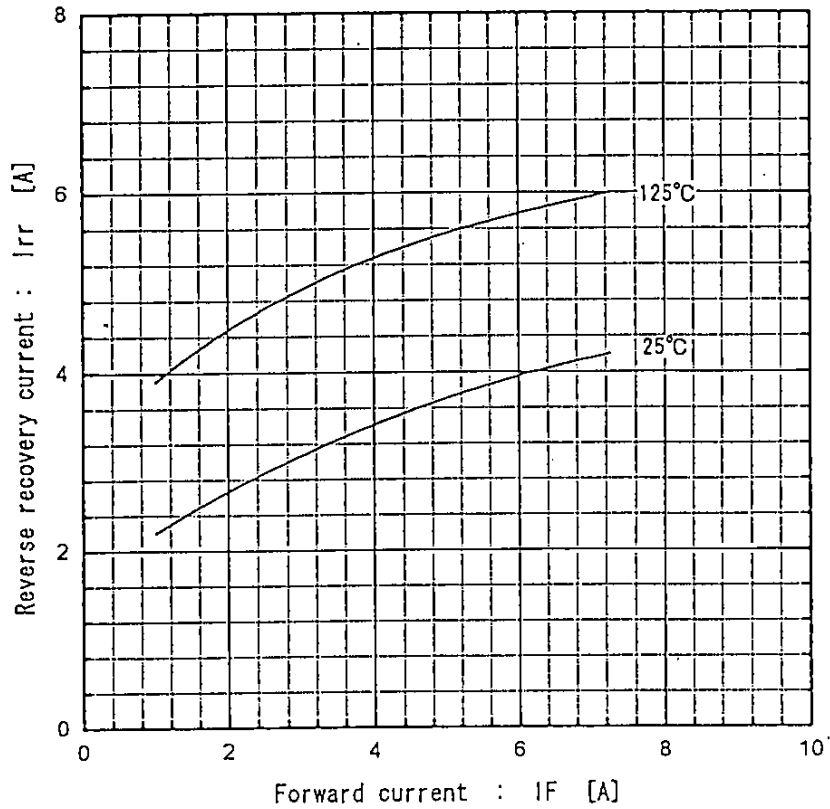
01

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  
 $VR=200V, -di/dt=100A/\mu sec$



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



Fuji Electric Co., Ltd.

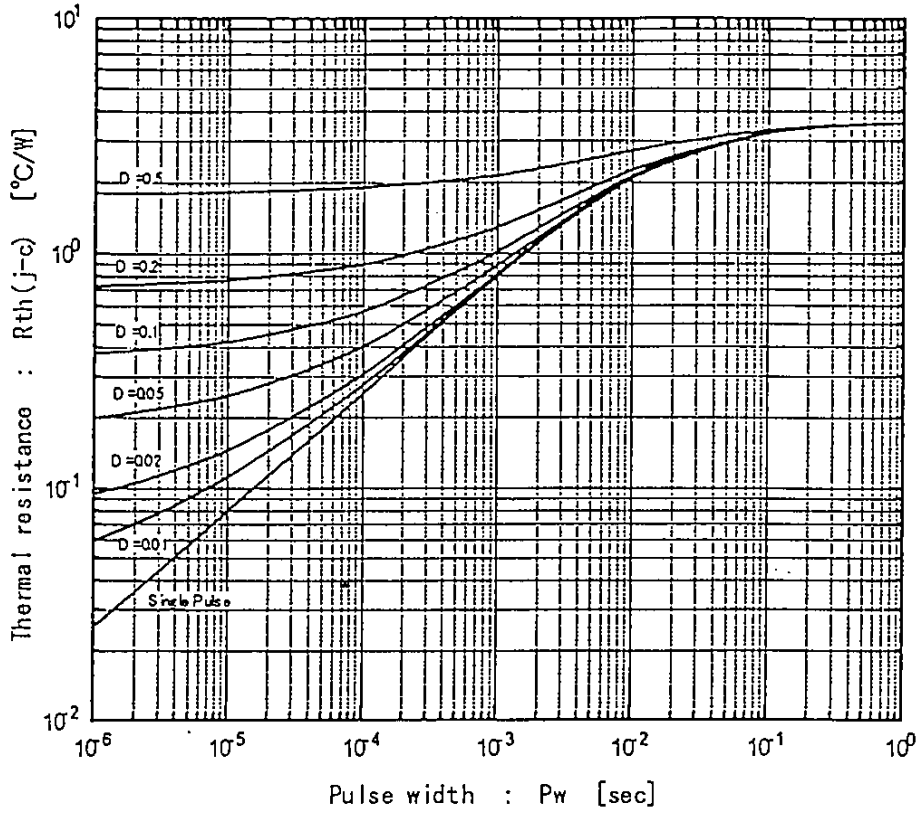
DWG NO.

5/6

a

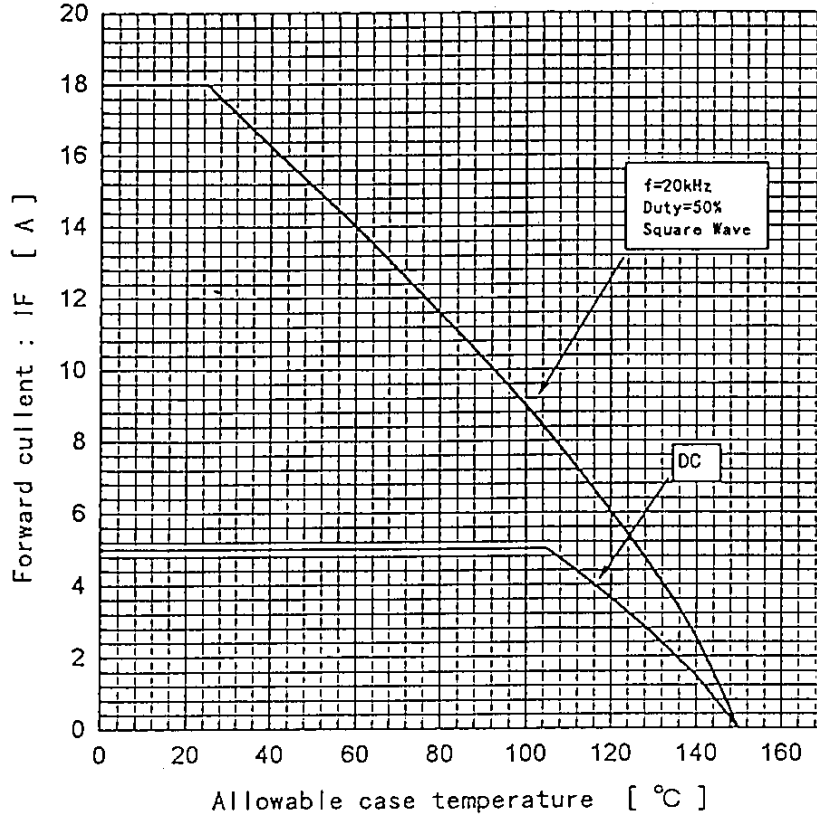
ERW08-120

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

a