

SPECIFICATION

DEVICE NAME : SILICON DIODE

TYPE NAME : ERW10-120

SPEC. No. :

DATE :

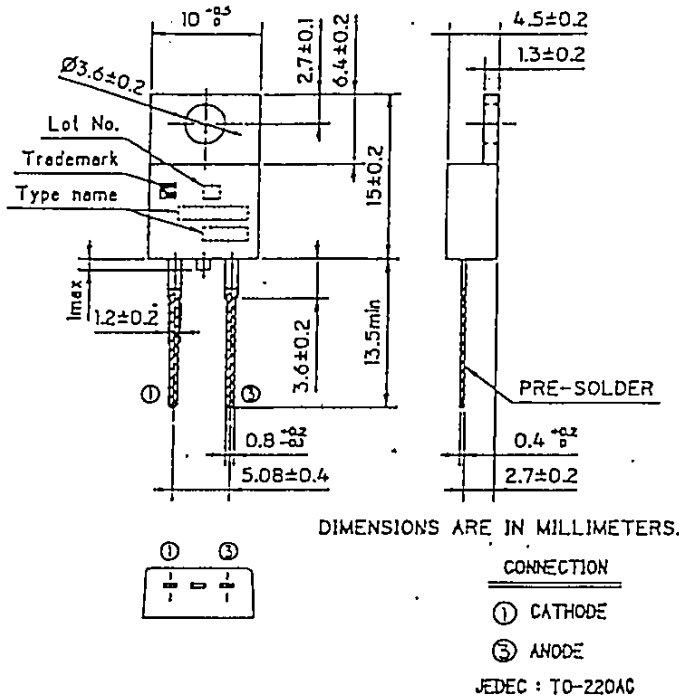
Fuji Electric Co.,Ltd.

This Specification is subject to change without notice.

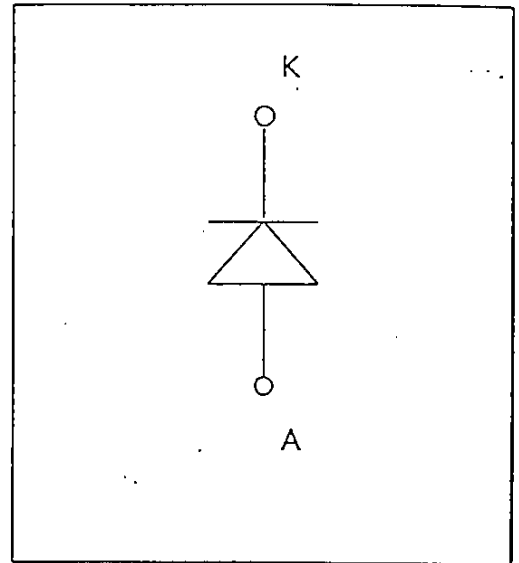
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ERW10-120

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=123°C 10	A
			Tc= 25°C 32	A
Average rectified forward current	$I_{F(AV)}$	DC	10	A
Non-repetitive peak surge current	I_{FSM}	Pulse10ms, sin wave	85	A
Maximam Power Dissipaion	P_D	—————	60	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)

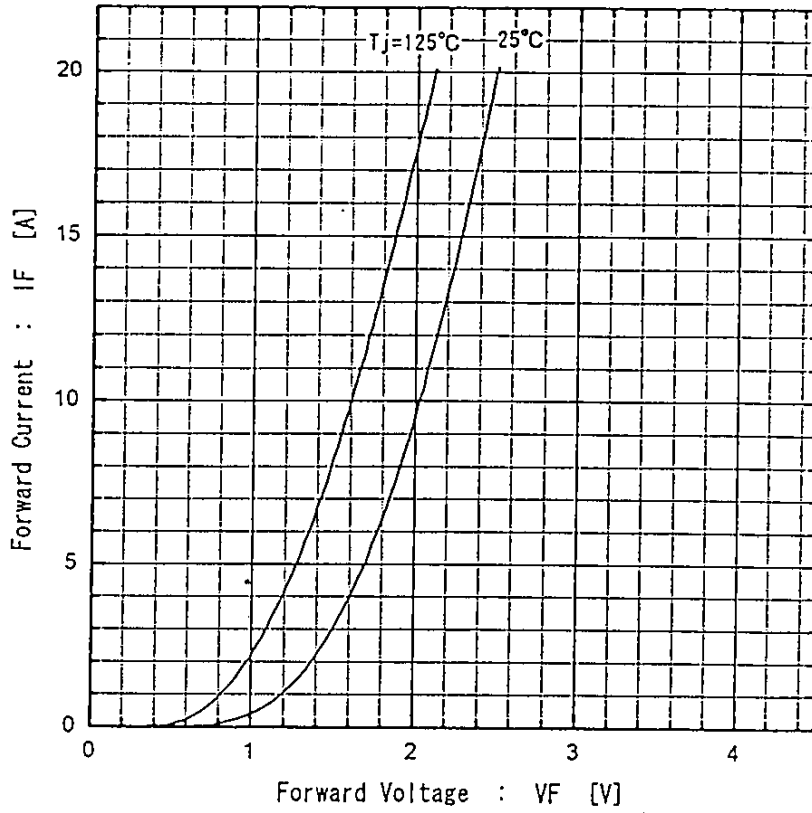
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Reverse Current	I_R	—	—	1.0	$V_R = 1200V$	mA
forward voltage	V_F	—	—	3.0	$I_F = 10A$	V
Reverse recovery time	t_{rr}	—	—	0.3	$I_F=10A, V_R=200V$ $di/dt=100A/\mu s$	μS

5. Thermal resistance characteristics

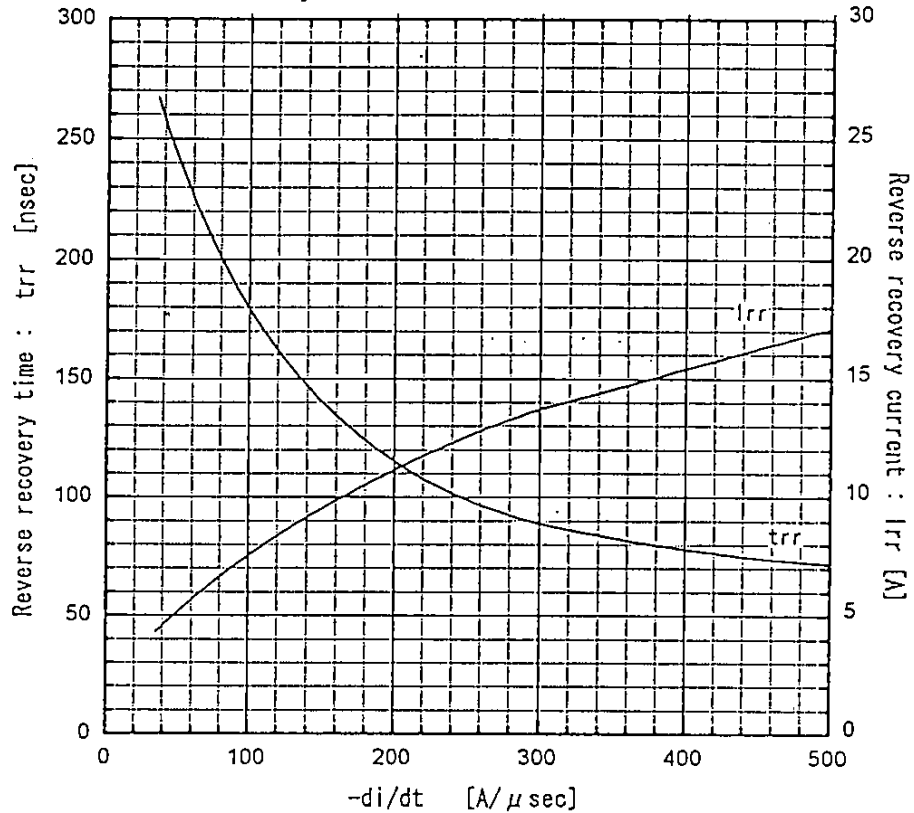
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Thermal resistance	$R_{th(j-c)}$	—	—	2.08	junction to case	$^{\circ}C/W$

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Forward voltage vs. Forward current



Reverse recovery characteristics vs. $-di/dt$
IF=10A, Tj=125°C



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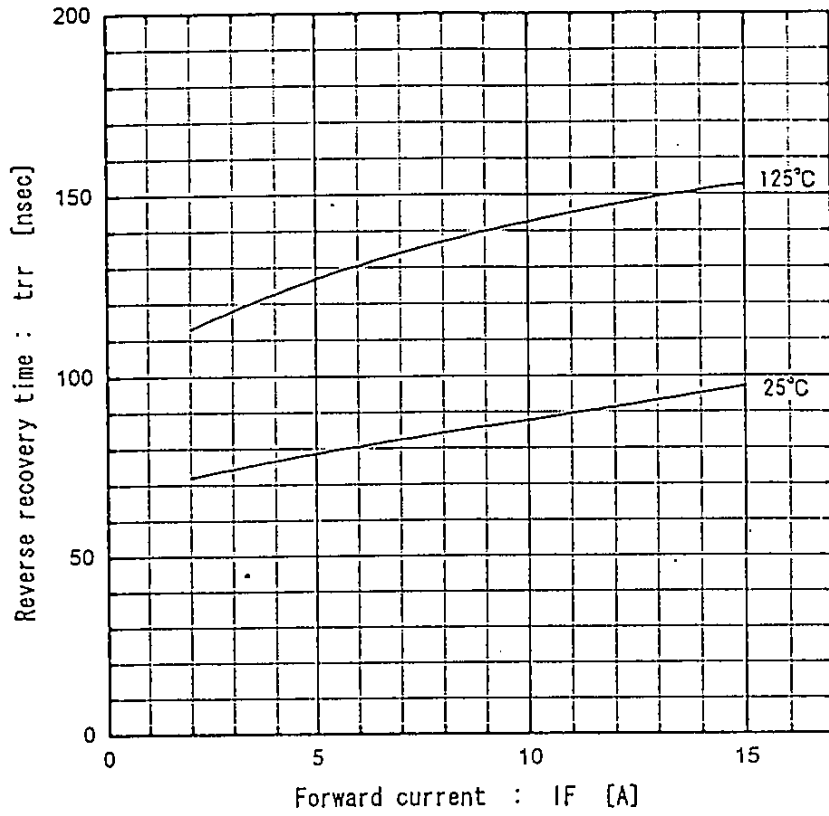
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4/6

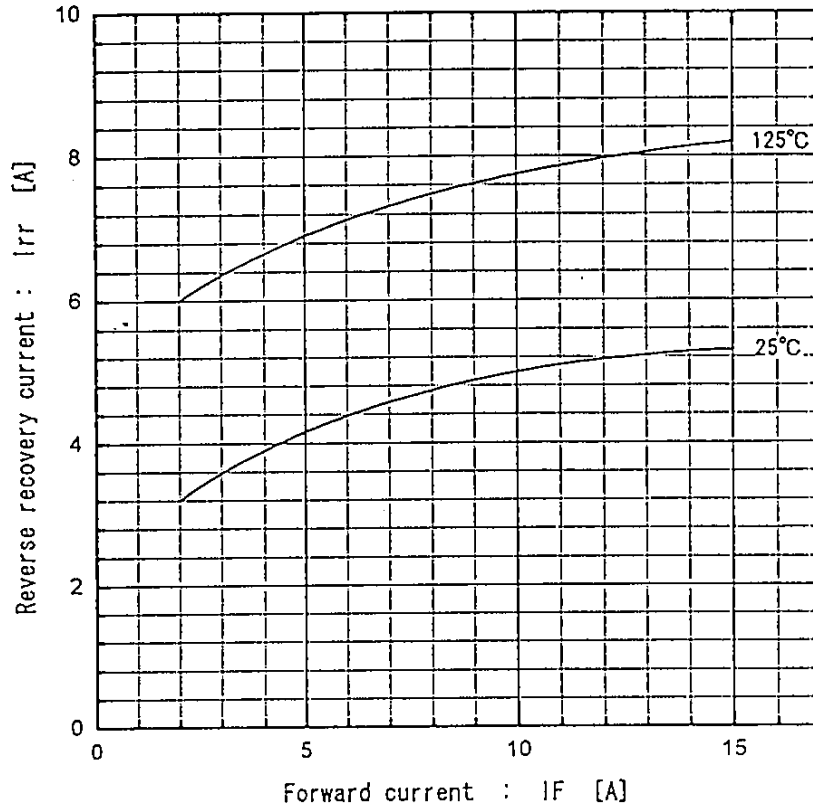
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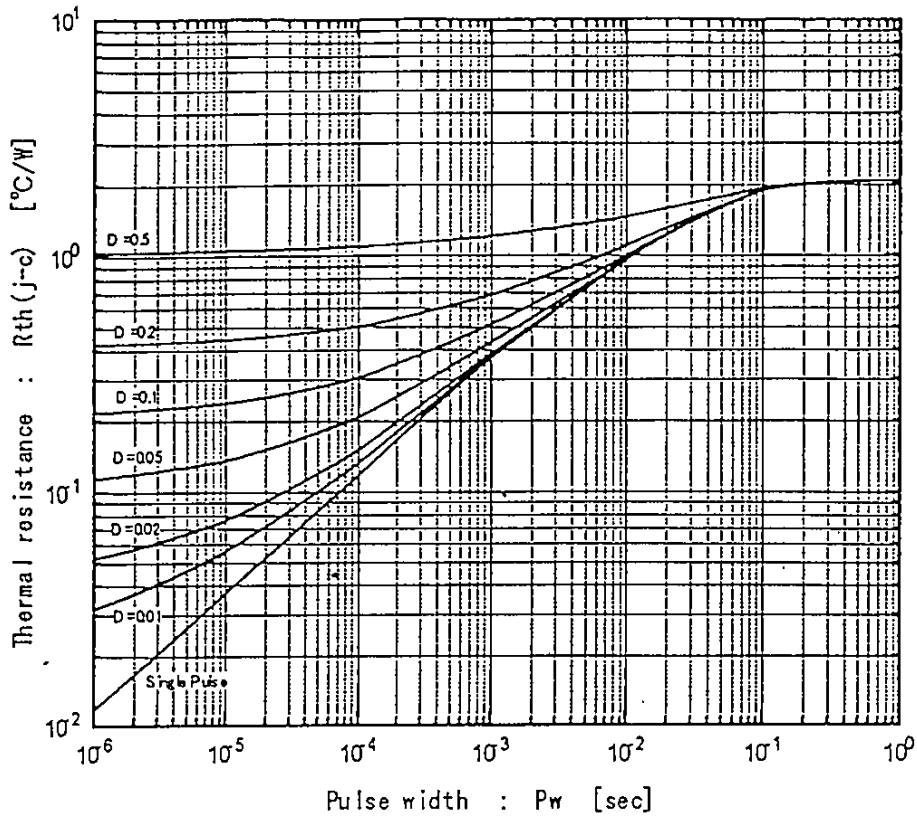
Reverse recovery time vs. Forward current
 $VR=200V, -di/dt=100A/\mu sec$



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

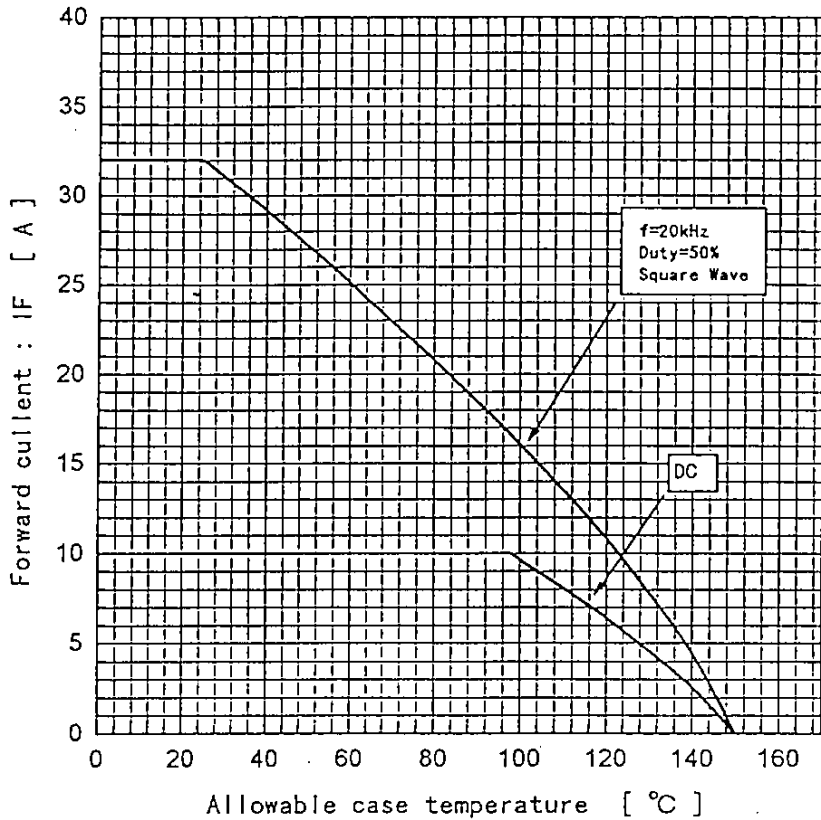


ERW10-120
Transient thermal resistance



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Forward current vs. Max. allowable case temperature



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6/6

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