

SPECIFICATION

DEVICE NAME : SILICON DIODE
TYPE NAME : ERW09-120
SPEC. No. :
DATE :

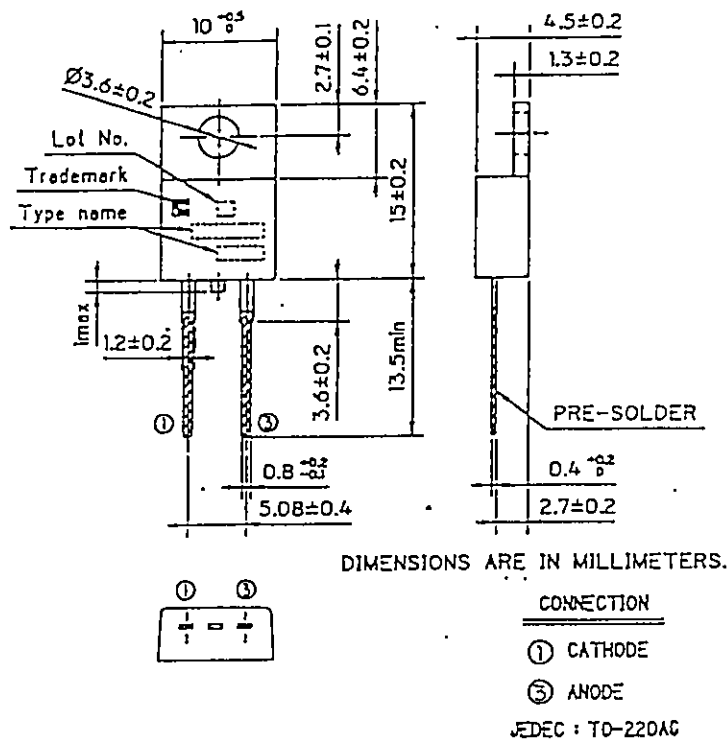
Fuji Electric Co.,Ltd.

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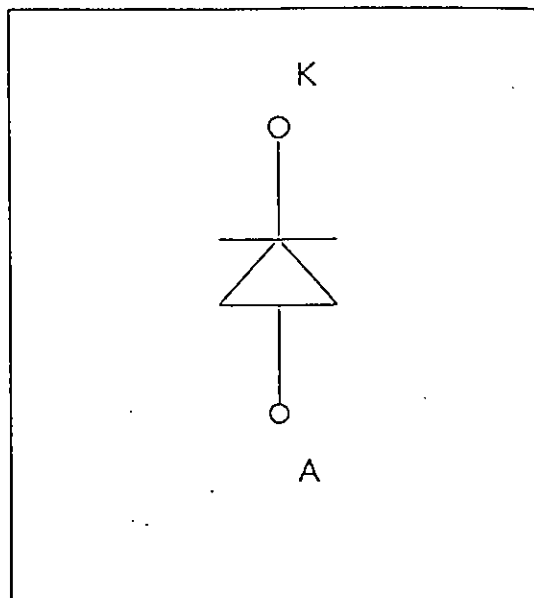
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ERW09-120

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=124°C 8	A
			Tc= 25°C 26	A
Average rectified forward current	I _{F(AV)}	D C	8	A
Non-repetitive peak surge current	I _{FSM}	Pulse10ms, sin wave	72	A
Maximam Power Dissipaion	P _D	—————	50	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)

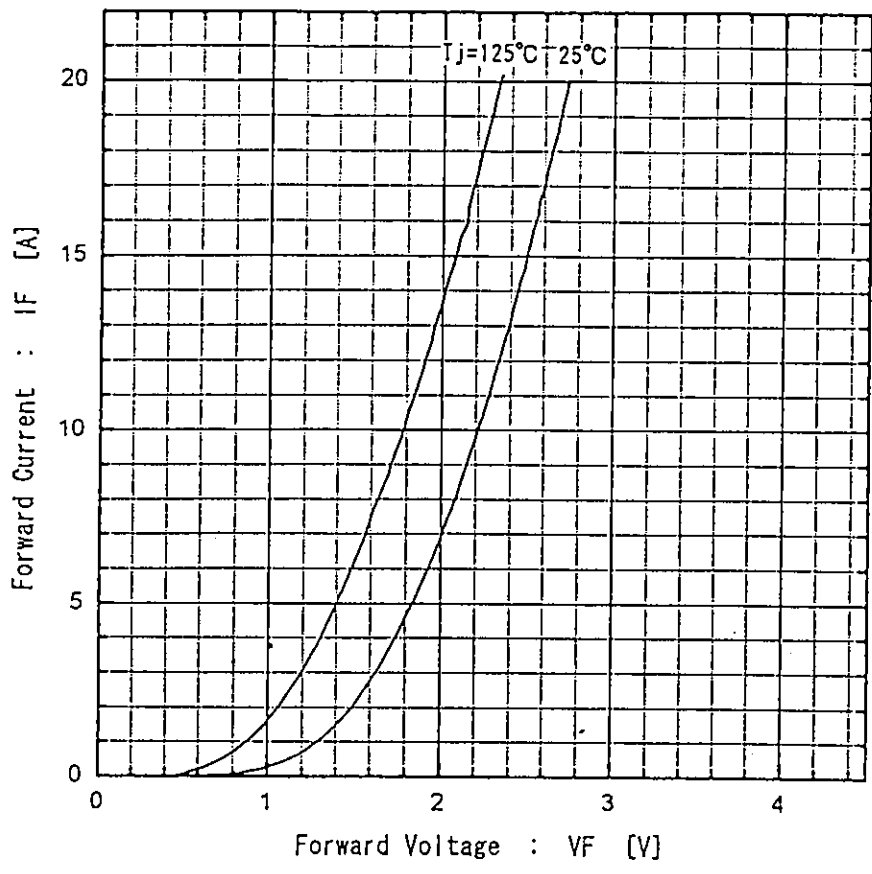
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Reverse Current	I_R	—	—	1.0	$V_R = 1200V$	mA
foward voltage	VF	—	—	3.0	$I_F = 8A$	V
Reverse recovery time	t _{rr}	—	—	0.3	$I_F = 8A, V_R = 200V$ $di/dt = 100A/\mu s$	μs

5. Thermal resistance characteristics

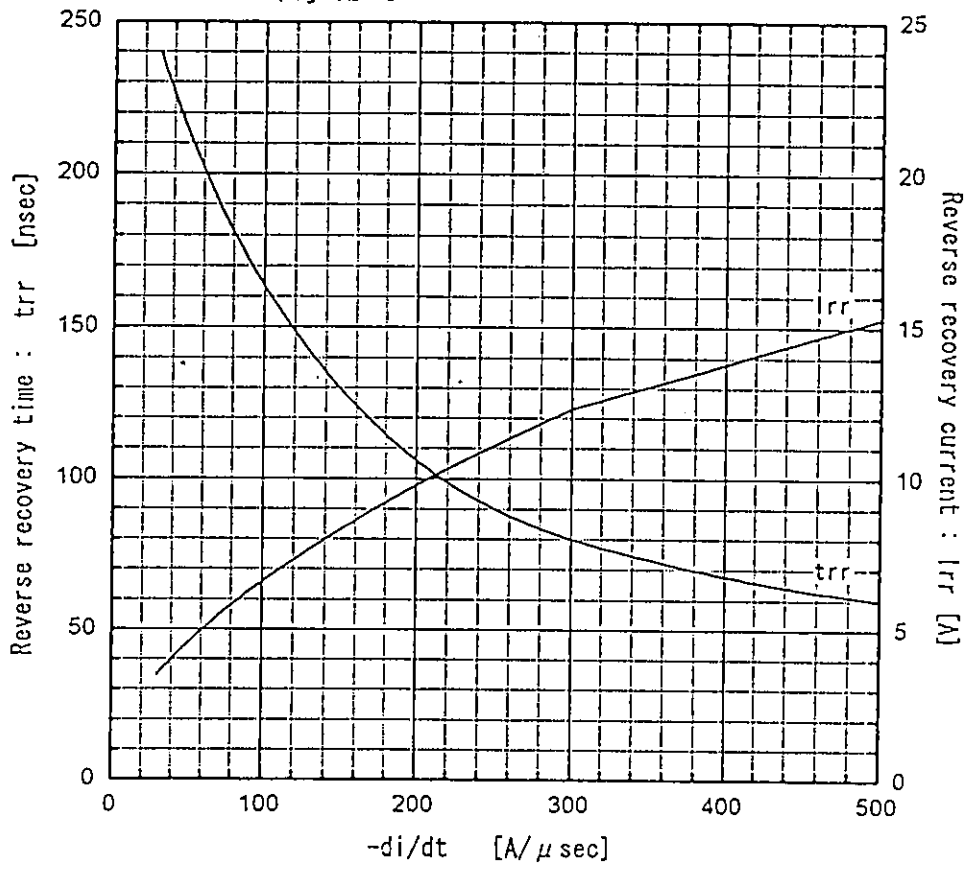
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Thermal resistance	R _{th(j-c)}	—	—	2.50	junction to case	°C/W

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Forward voltage vs. Forward current



Reverse recovery characteristics vs. -di/dt
IF=8A, Tj=125°C



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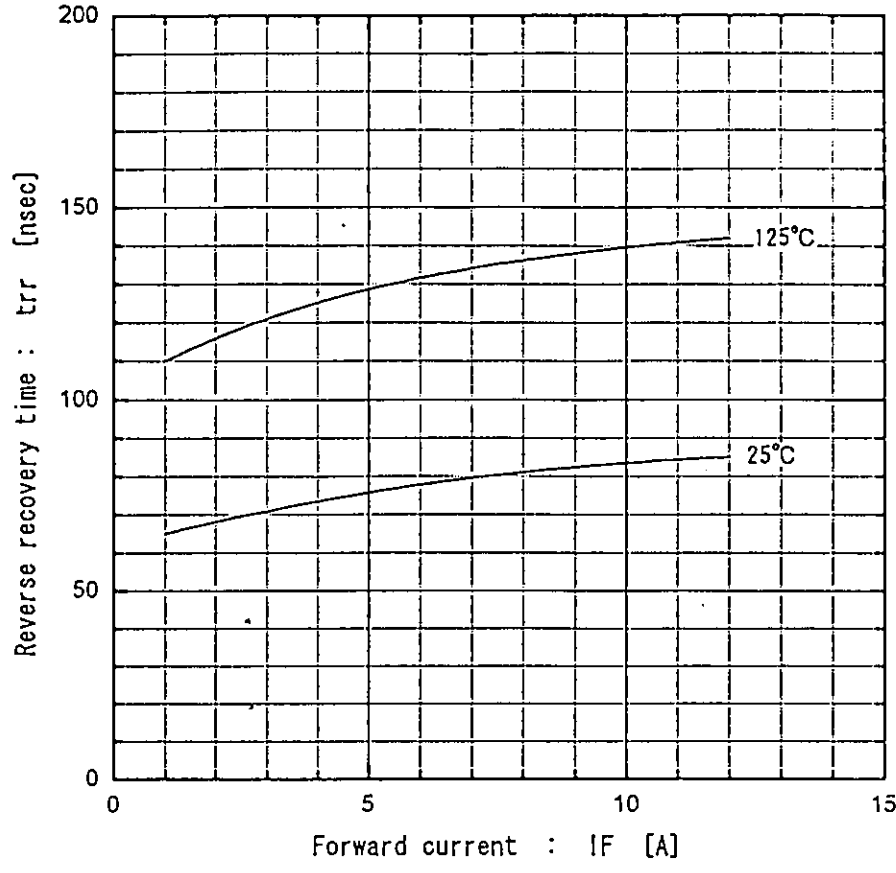
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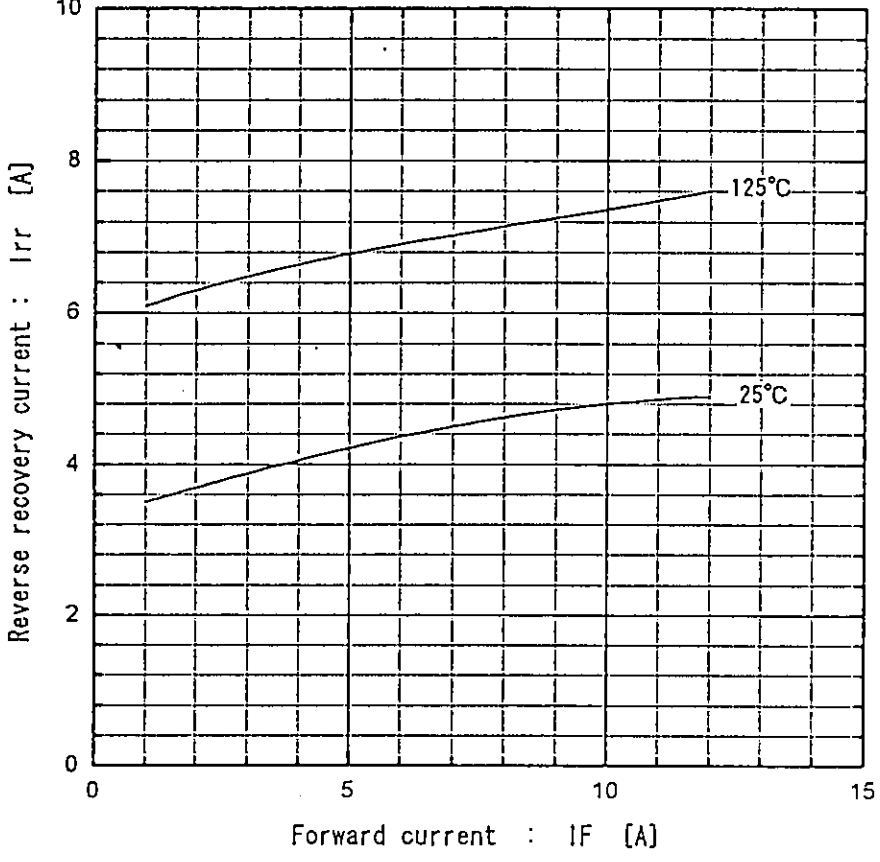
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Reverse recovery time vs. Forward current
 $VR=200V, -di/dt=100A/\mu sec$



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



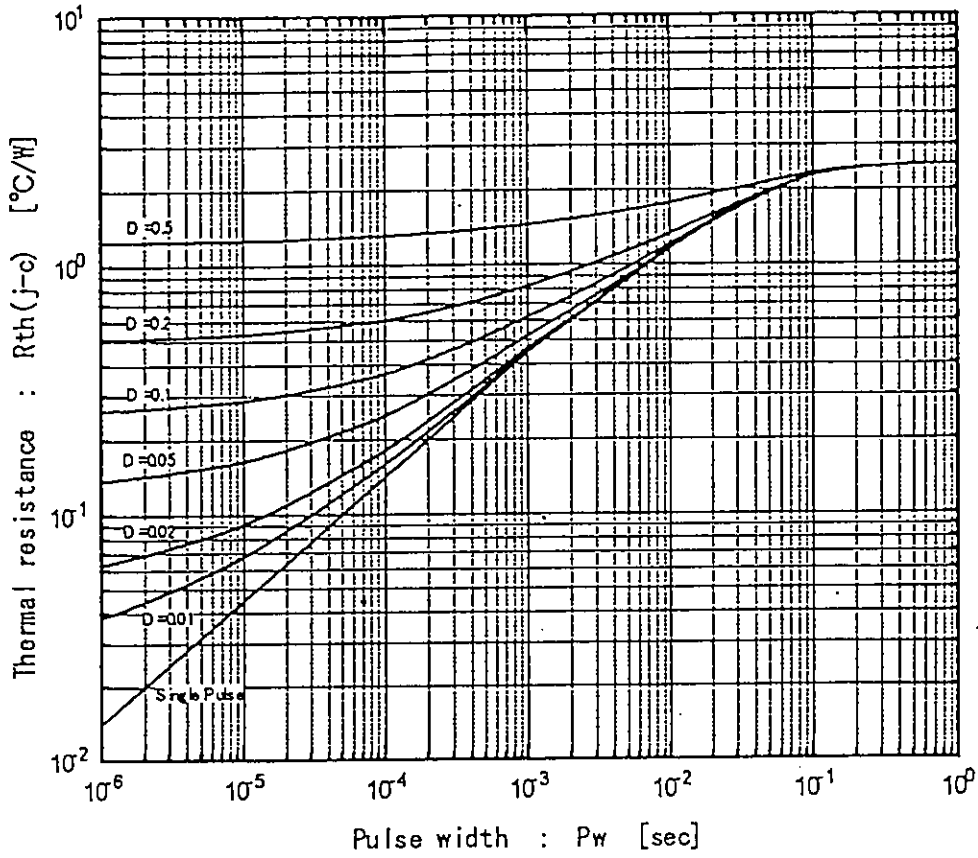
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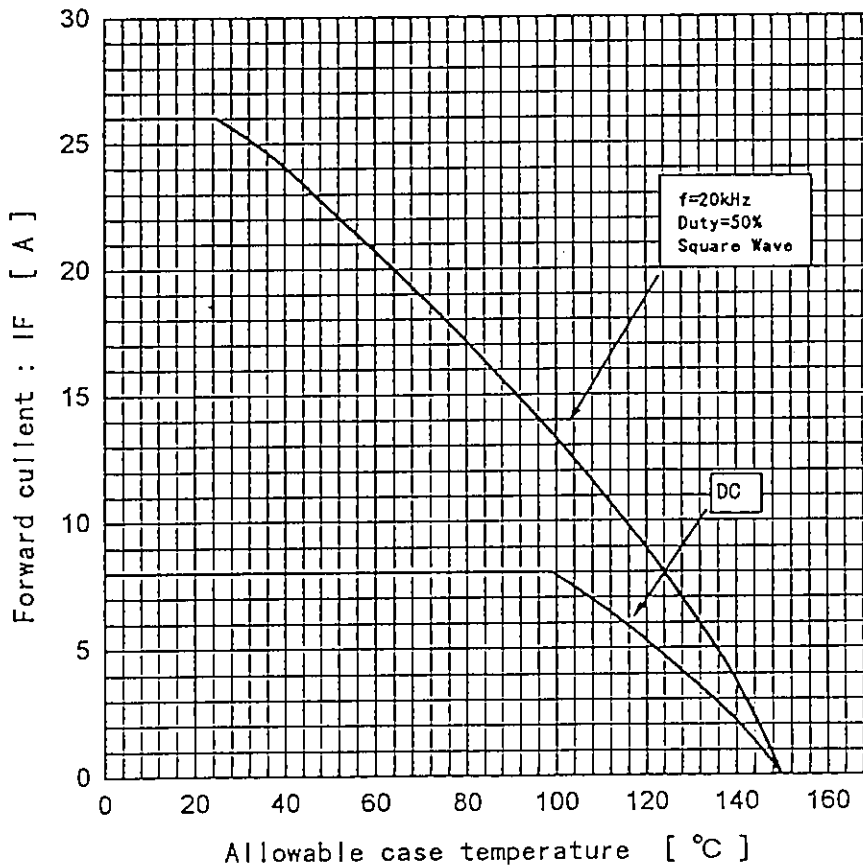
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ERW09-120
Transient thermal resistance



Forward current vs. Max. allowable case temperature



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H04-004-03

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