

SPECIFICATION

DEVICE NAME : SILICON DIODE

TYPE NAME : ERW04-060

SPEC. No. :

DATE :

Fuji Electric Co.,Ltd.

This Specification is subject to change without notice.

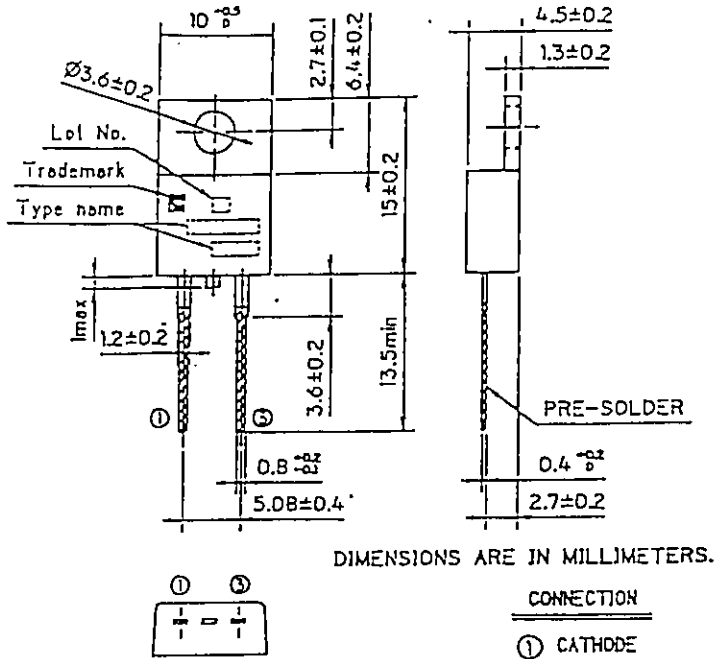
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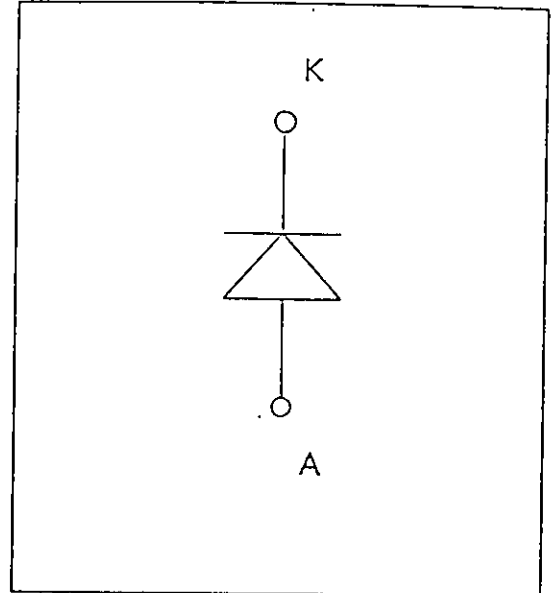
Ratings and characteristics of Fuji silicon diode

ERW04-060

1. Outline Drawing



2. Equivalent circuit



3. Absolute maximum ratings (Tc=25°C)

Items	Symbols	Conditions	Ratings	Units
Repetitive Reverse Voltage	V_{RRM}	—————	600	V
Repetitive peak surge current	I_{FM}	20kHz Duty50% Squ. wave	Tc= 91°C 20	A
			Tc= 25°C 35	A
Average rectified forward current	$I_{F(AV)}$	DC	20	A
Non-repetitive peak surge current	I_{FSM}	Pulse10ms, sin wave	90	A
Maximam Power Dissipaion	P_D	—————	55	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)

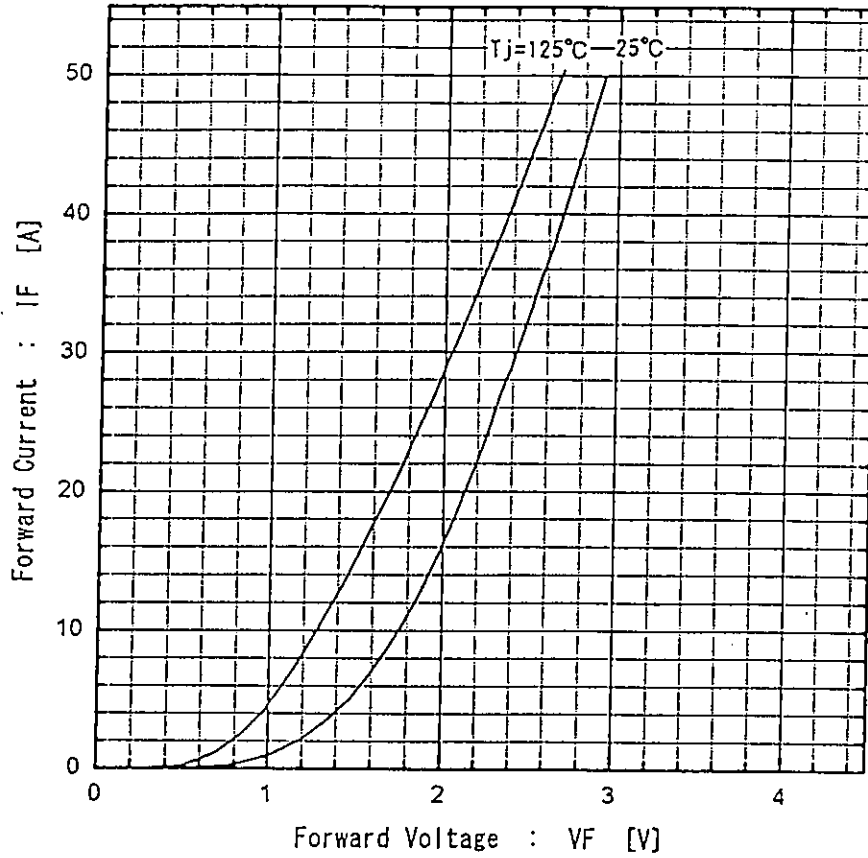
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Reverse Current	I_R	—	—	1.0	$V_R = 600 \text{ V}$	mA
forward voltage	V_F	—	—	3.0	$I_F = 20\text{A}$	V
Reverse recovery time	t_{rr}	—	—	0.3	$I_F = 20\text{A}, V_R = 200\text{V}$ $di/dt = 100\text{A}/\mu\text{s}$	μs

5. Thermal resistance characteristics

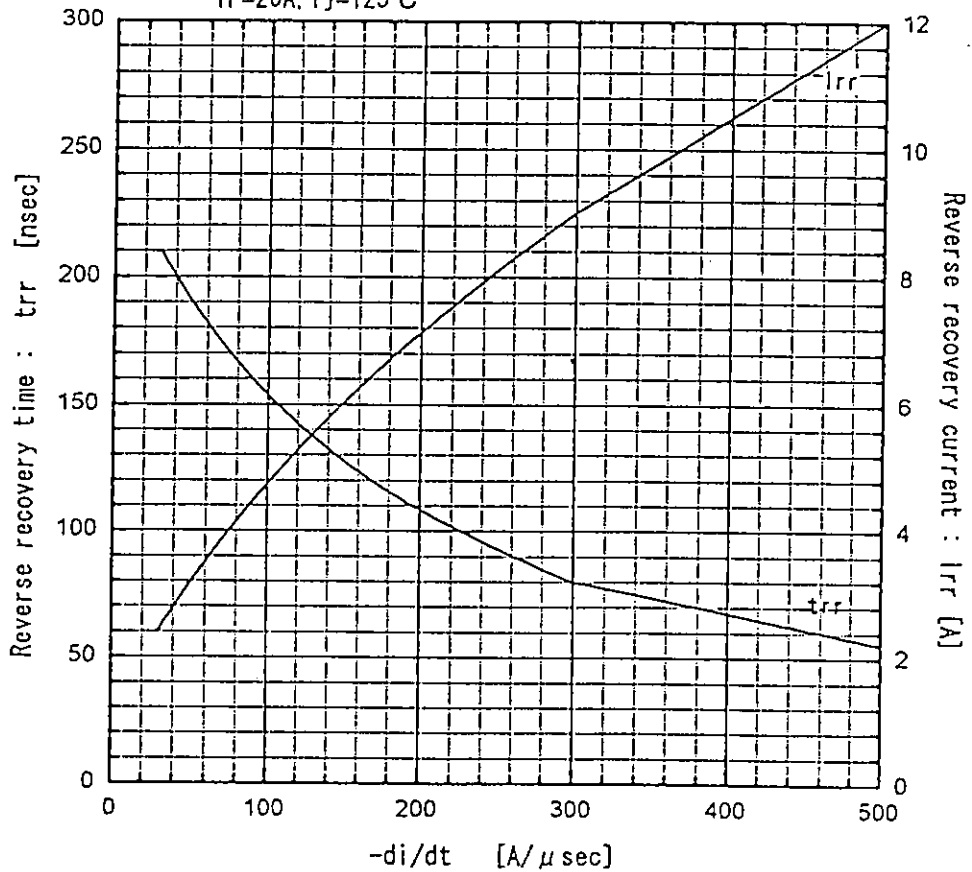
Items	Symbols	Characteristics			Conditions	Unit
		min.	typ.	max.		
Thermal resistance	$R_{th(j-c)}$	—	—	2.27	junction to case	$^{\circ}\text{C}/\text{W}$

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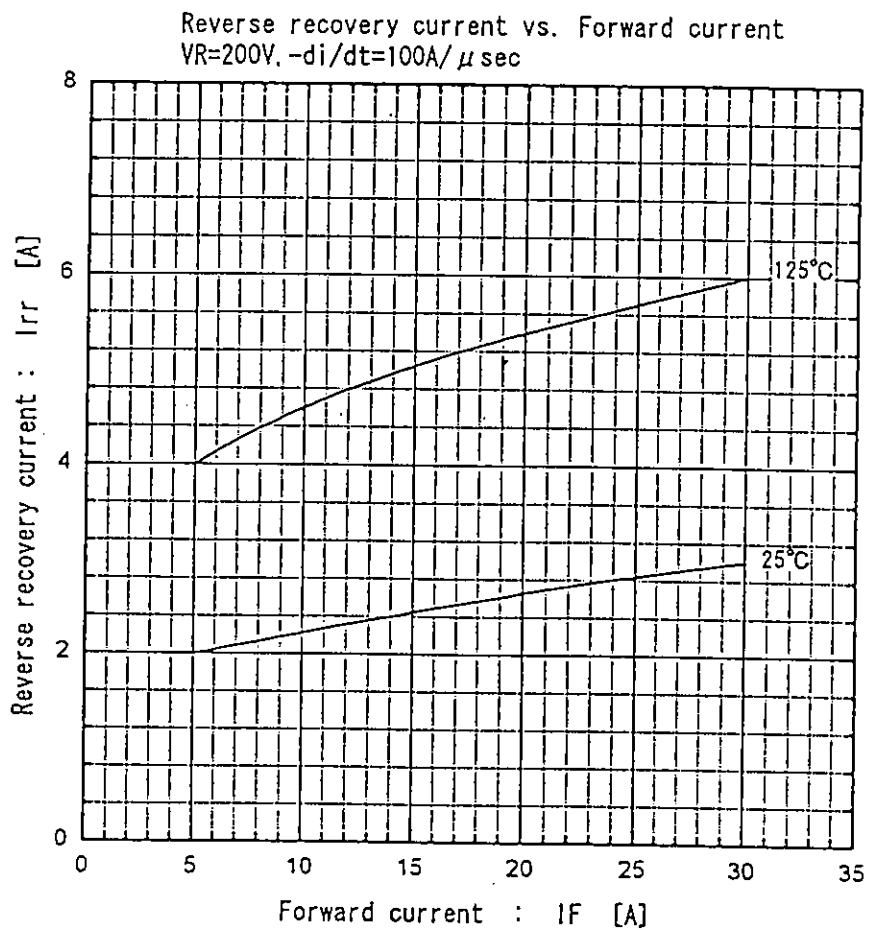
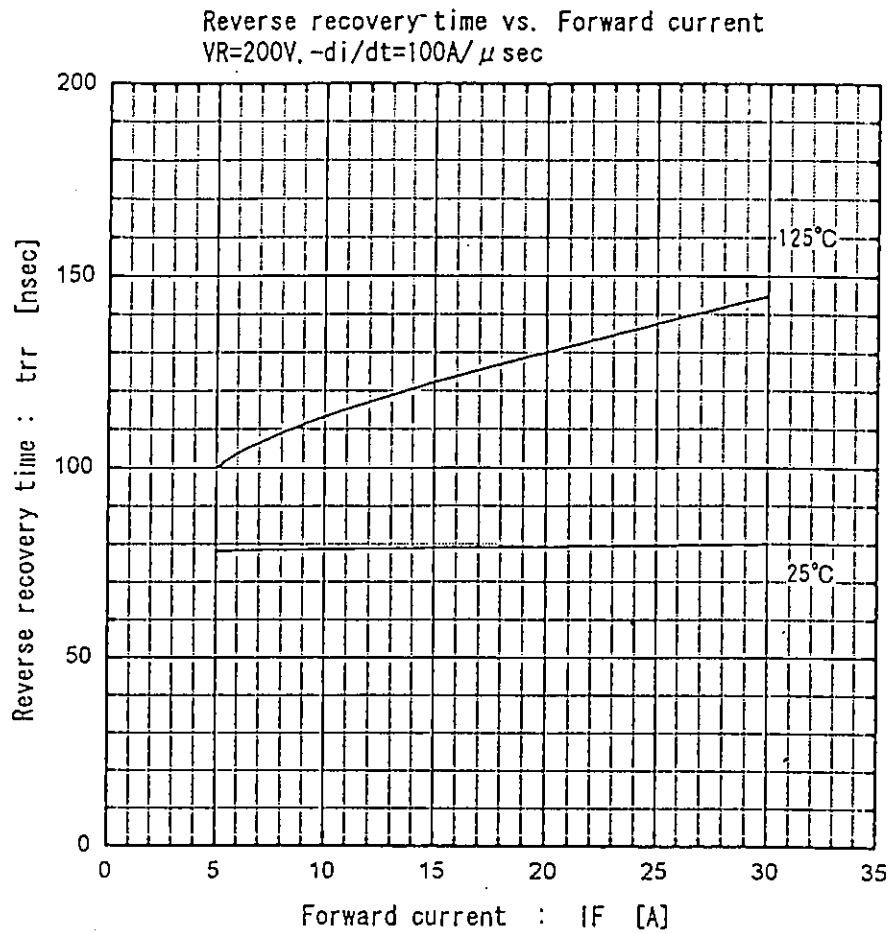
Forward voltage vs. Forward current



Reverse recovery characteristics vs. $-di/dt$
 $I_F=20A, T_j=125^\circ C$

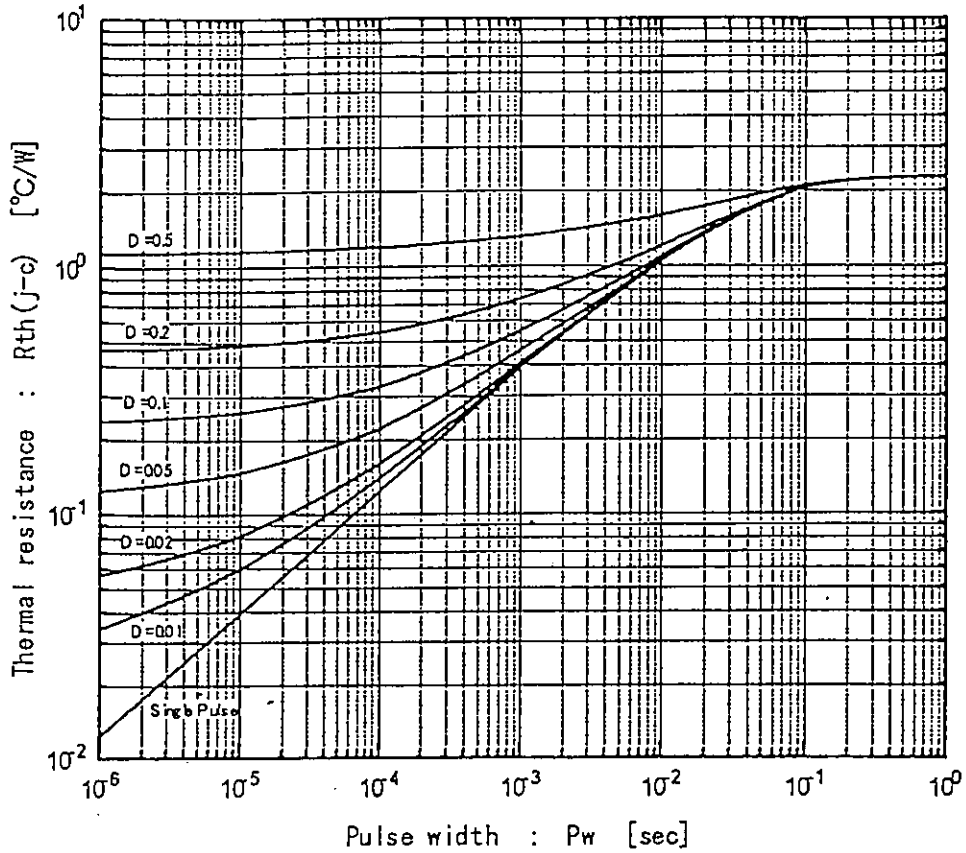


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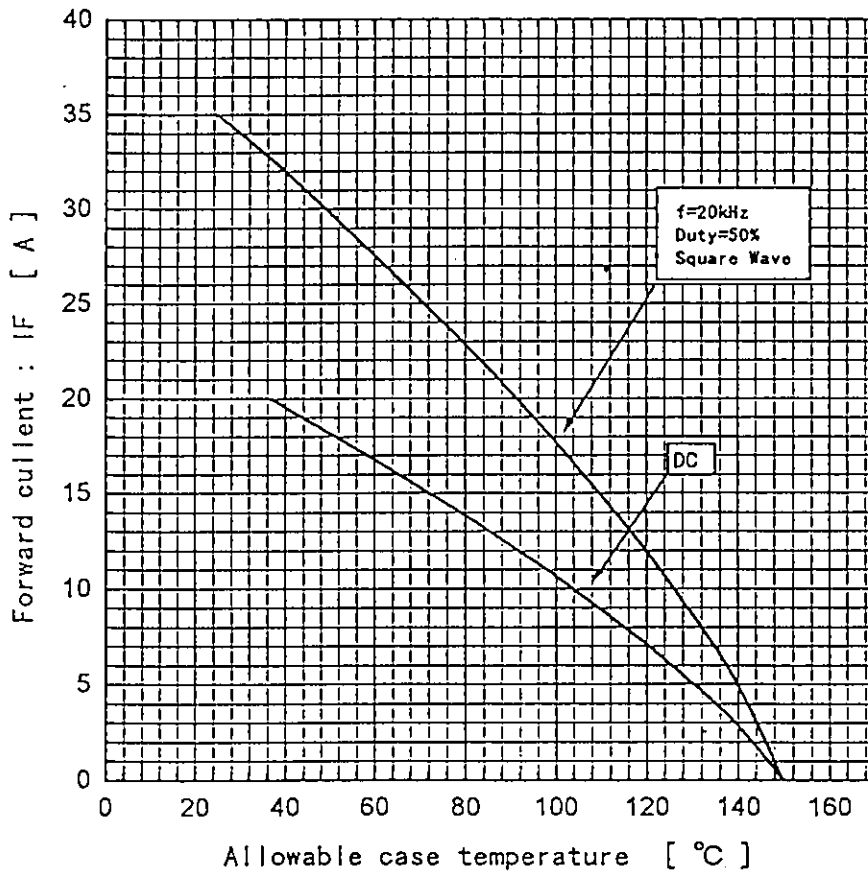
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Transient thermal resistance



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Forward current vs. Max. allowable case temperature



For more information, contact:

Collmer Semiconductor, Inc.

P.O. Box 702708

Dallas, TX 75370

972-733-1700

972-381-9991 Fax

<http://www.collmer.com>