

SPECIFICATION

DEVICE NAME : IGBT
 TYPE NAME : 1MBH08D-120
 SPEC. No. :
 DATE :

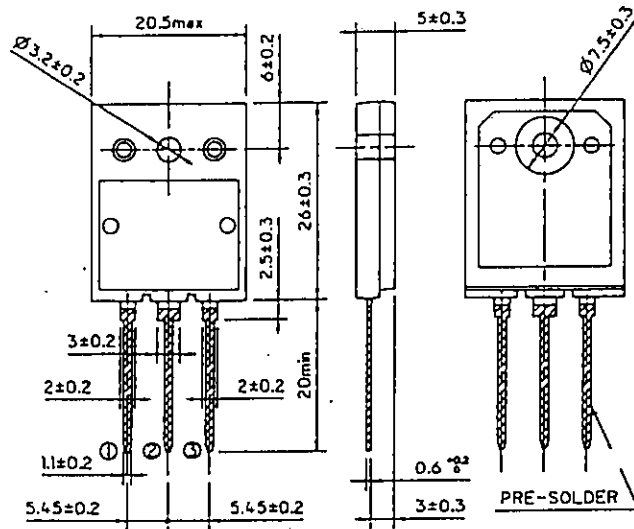
Fuji Electric Co.,Ltd.

This Specification is subject to change without notice.

	DATE	NAME	APPROVED	Fuji Electric Co.,Ltd		
DRAWN				DWG.NO.	1/12	a
CHECKED						

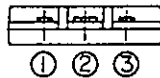
1MBH08D-120

1. Outline Drawing

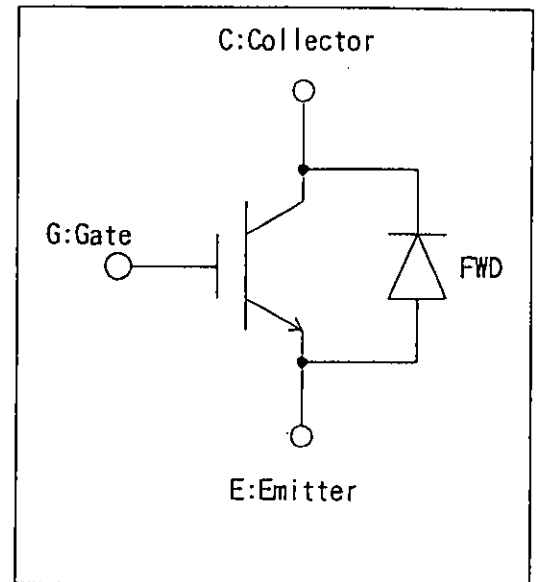


CONNECTION

- ① GATE
② COLLECTOR
③ EMITTER



2. Equivalent circuit

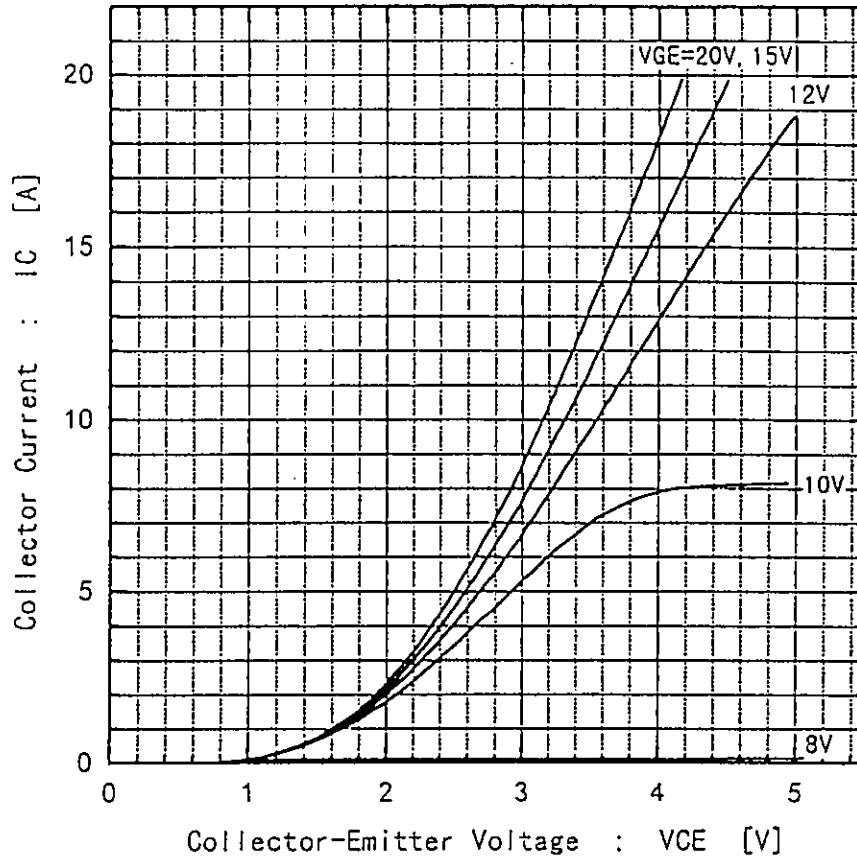


3. Absolute maximum ratings (Tc=25°C)

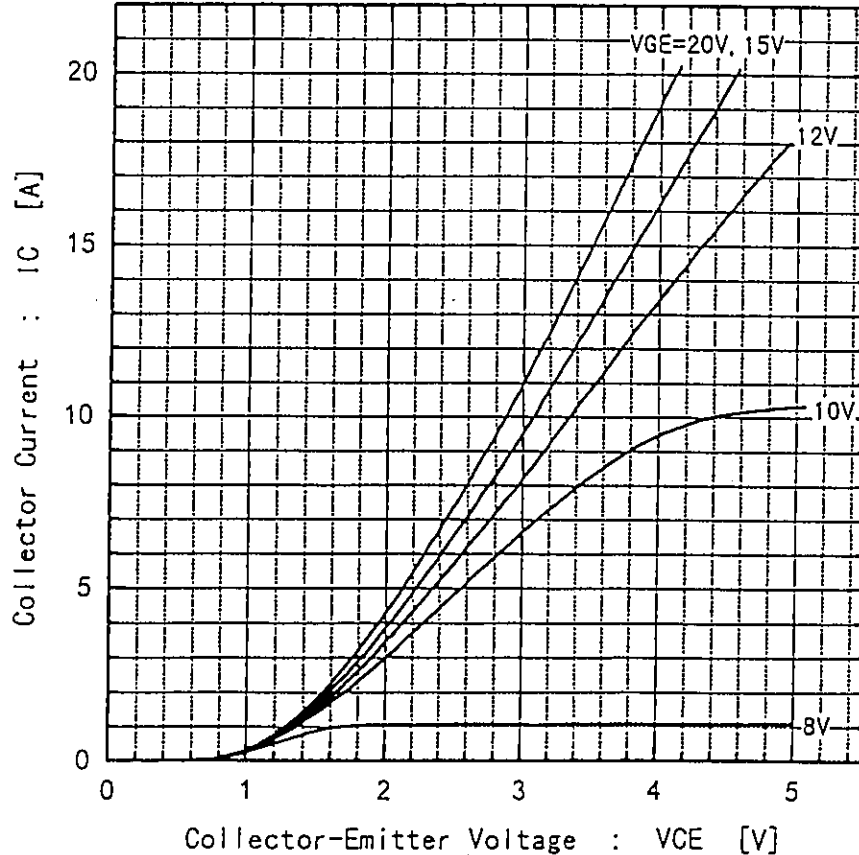
Items			Symbols	Ratings	Units
Collector-Emitter Voltage			V_{CES}	1200	V
Gate-Emitter Voltage			V_{GES}	±20	V
Collector Current	DC	Tc=25 °C	I_{C25}	15	A
		Tc=105°C	I_{C105}	8	A
	1ms	Tc=25 °C	I_{cp}	39	A
IGBT Max. Power Dissipation			P_c	135	W
FWD Max. Power Dissipation			P_c	85	W
Operating Temperature			T_j	+ 150	°C
Storage Temperature			T_{stg}	-40 ~ +150	°C
Mounting Screw Torque			—	70	N · cm

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.

Collector Current vs. Collector-Emitter Voltage
 $T_j = 25^\circ\text{C}$

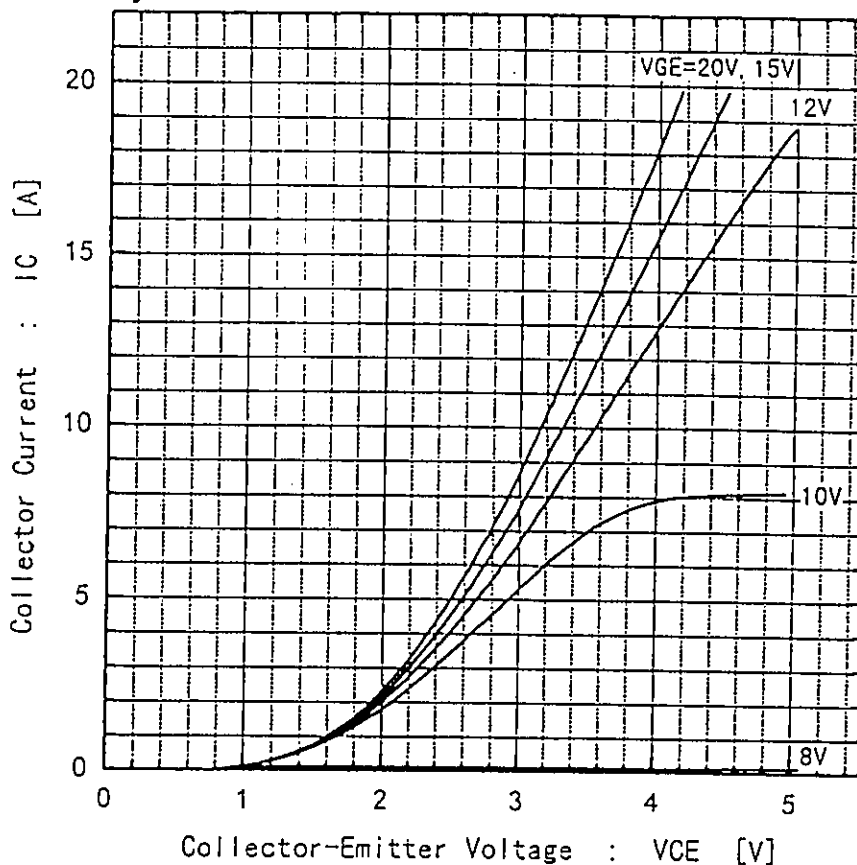


Collector Current vs. Collector-Emitter Voltage
 $T_j = 25^\circ\text{C}$

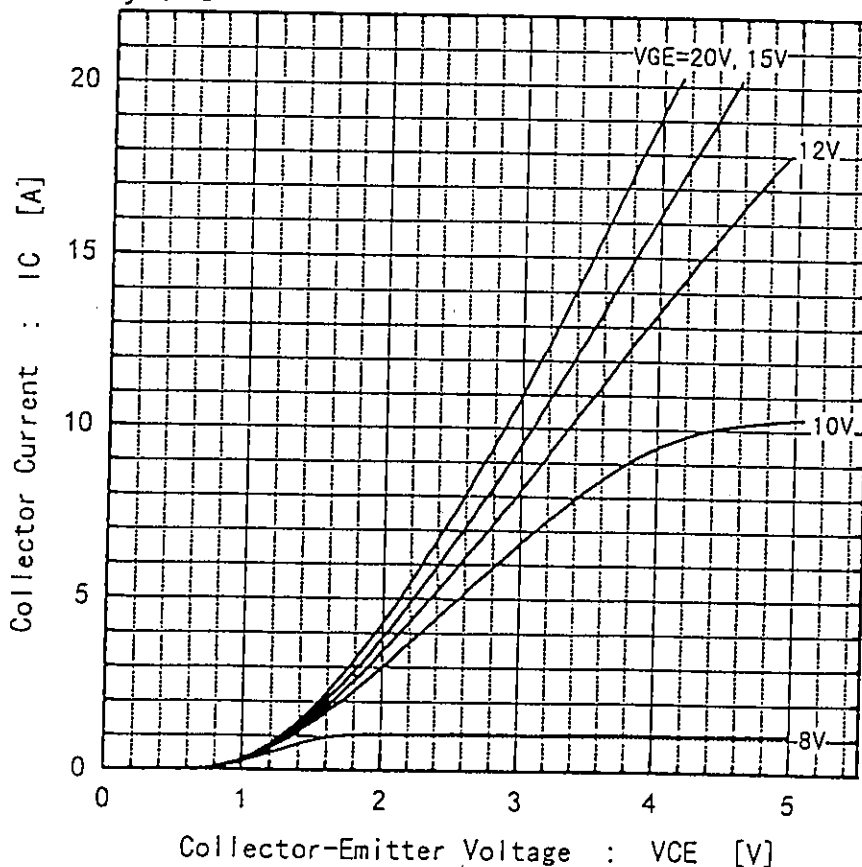


This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

Collector Current vs. Collector-Emitter Voltage
 $T_j = 25^\circ\text{C}$

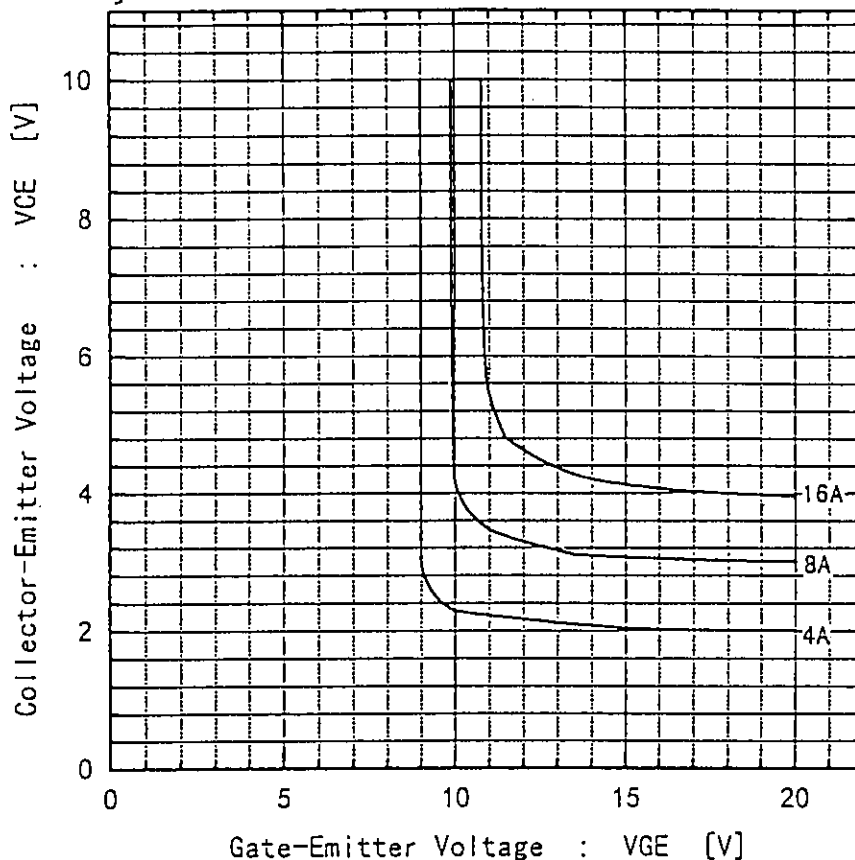


Collector Current vs. Collector-Emitter Voltage
 $T_j = 25^\circ\text{C}$

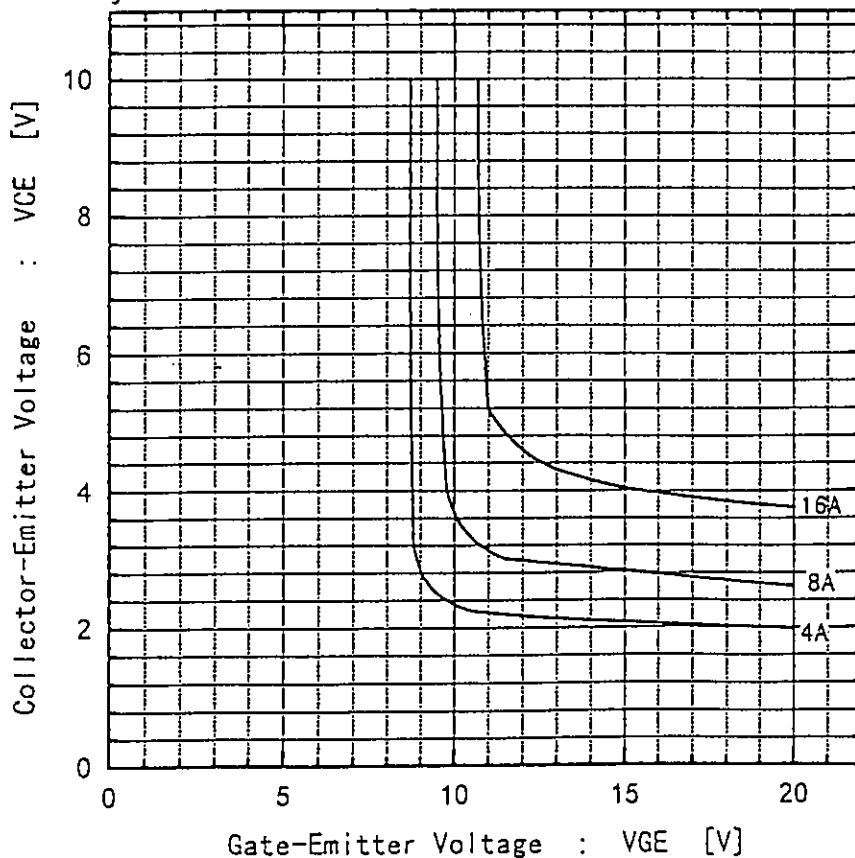


This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

Collector-Emitter Voltage vs Gate-Emitter Voltage
Tj=25°C

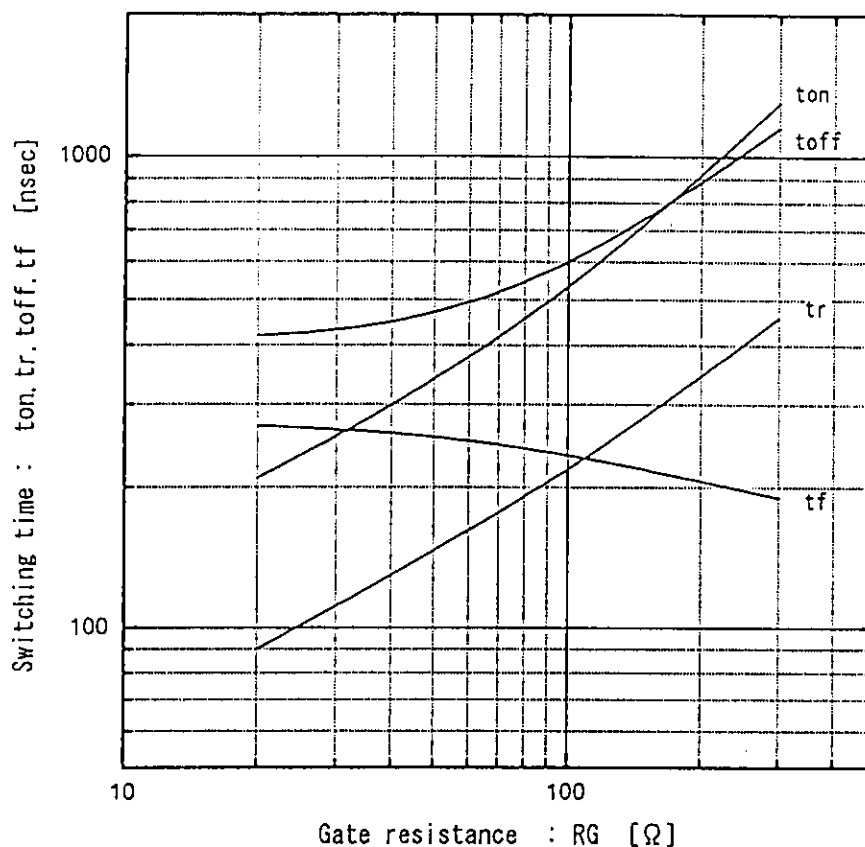


Collector-Emitter Voltage vs Gate-Emitter Voltage
Tj=125°C

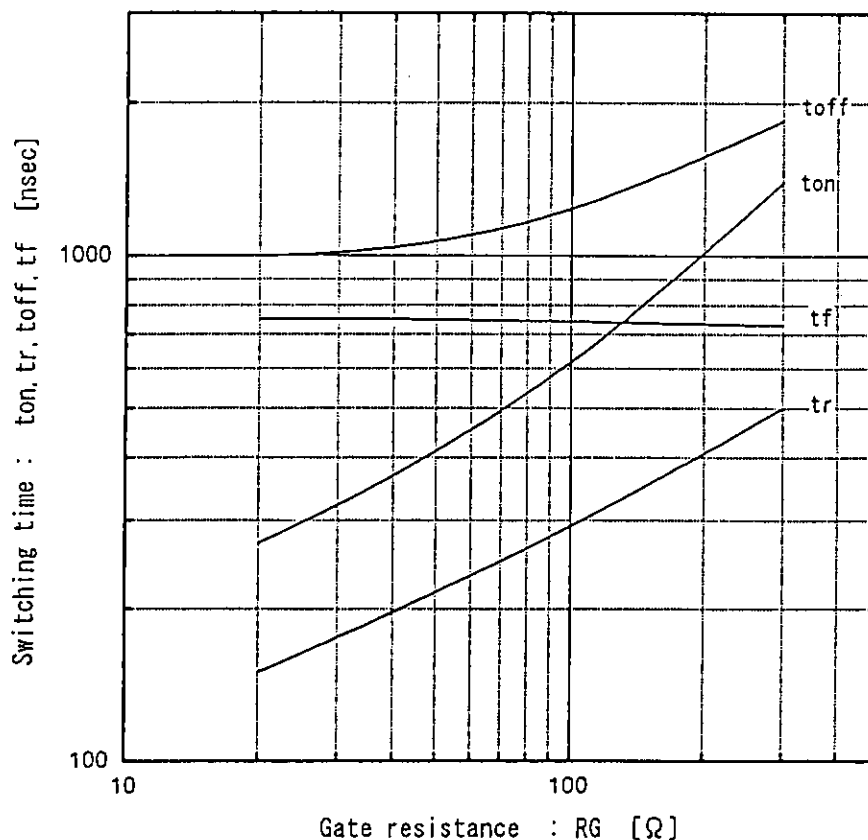


This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

Switching time vs. R_G
 $V_{CC}=600V, I_C=8A, V_{GE}=\pm 15V, T_j=25^\circ C$

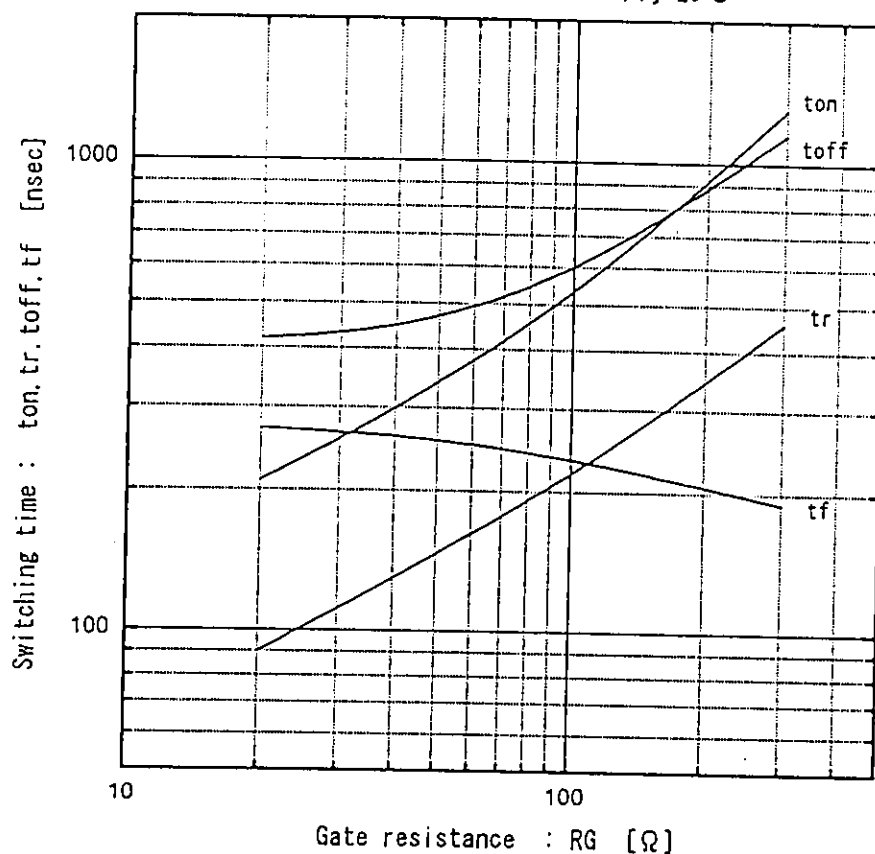


Switching time vs. R_G
 $V_{CC}=600V, I_C=8A, V_{GE}=\pm 15V, T_j=125^\circ C$

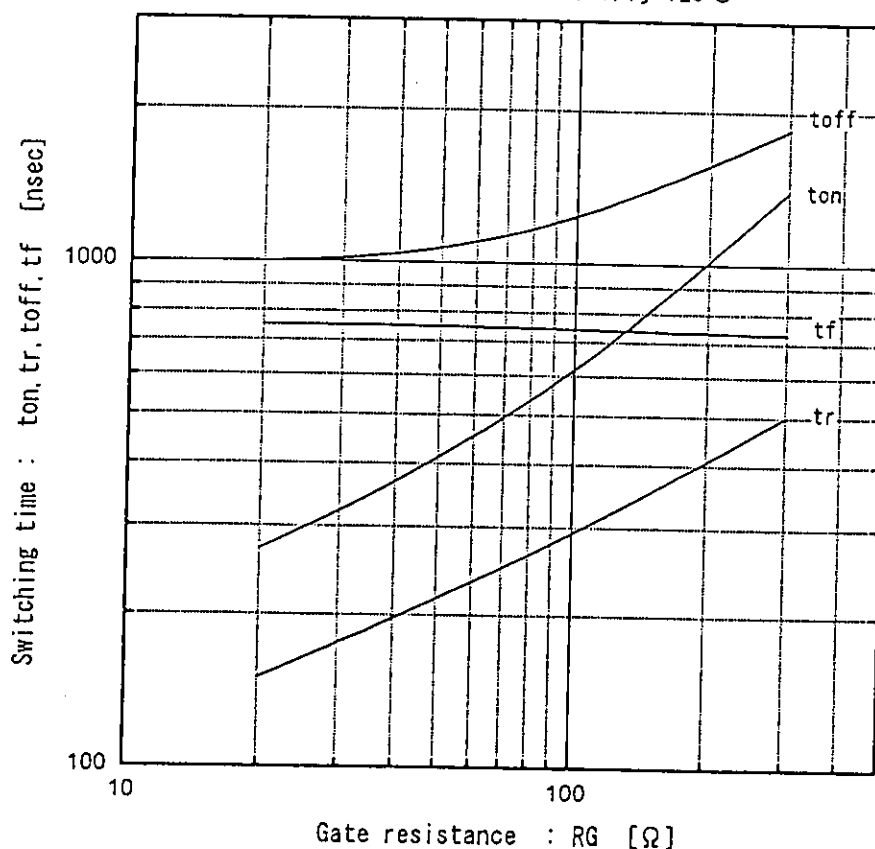


This material and the information herein is the property of Fuji Electric Co., Ltd. They shall be neither reproduced, copied, lent, or disclosed in any way whatsoever for the use of any third party nor used for the manufacturing purposes without the express written consent of Fuji Electric Co., Ltd.

Switching time vs. R_G
 $V_{CC}=600V$, $I_C=8A$, $V_{GE}=\pm 15V$, $T_j=25^\circ C$



Switching time vs. R_G
 $V_{CC}=600V$, $I_C=8A$, $V_{GE}=\pm 15V$, $T_j=125^\circ C$



Fuji Electric Co., Ltd.

DWG. NO.

7/12

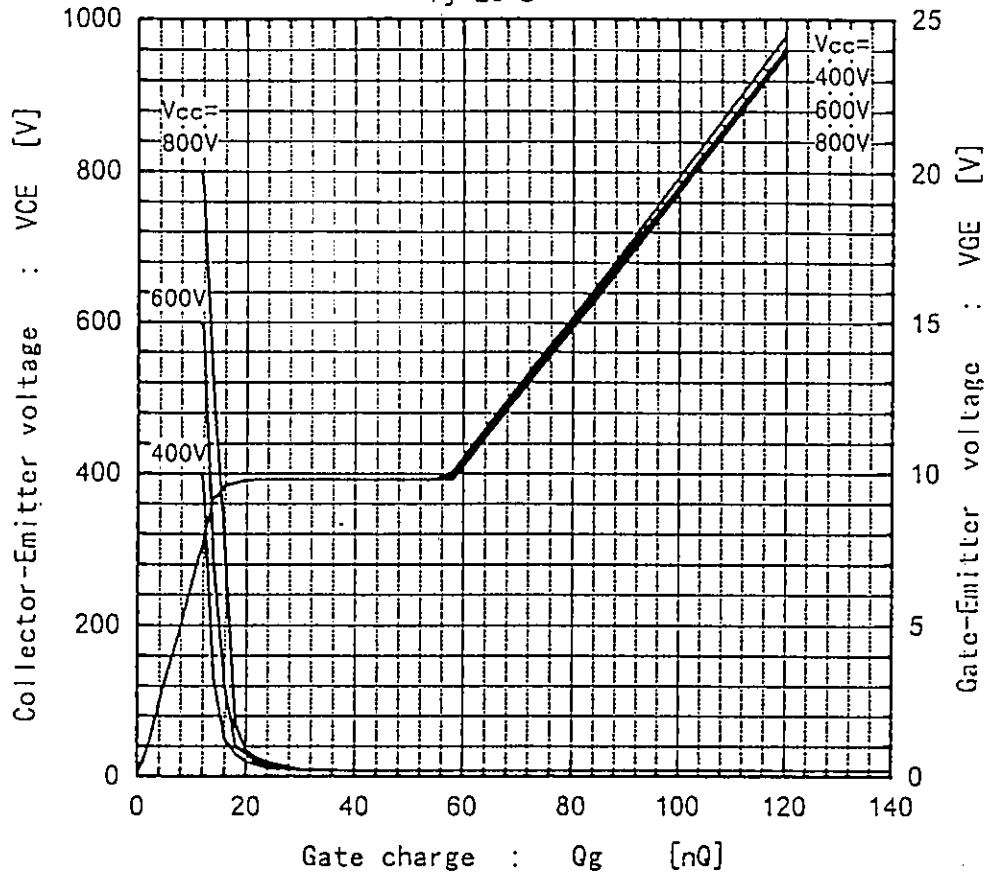
a	

H04-004-03

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.

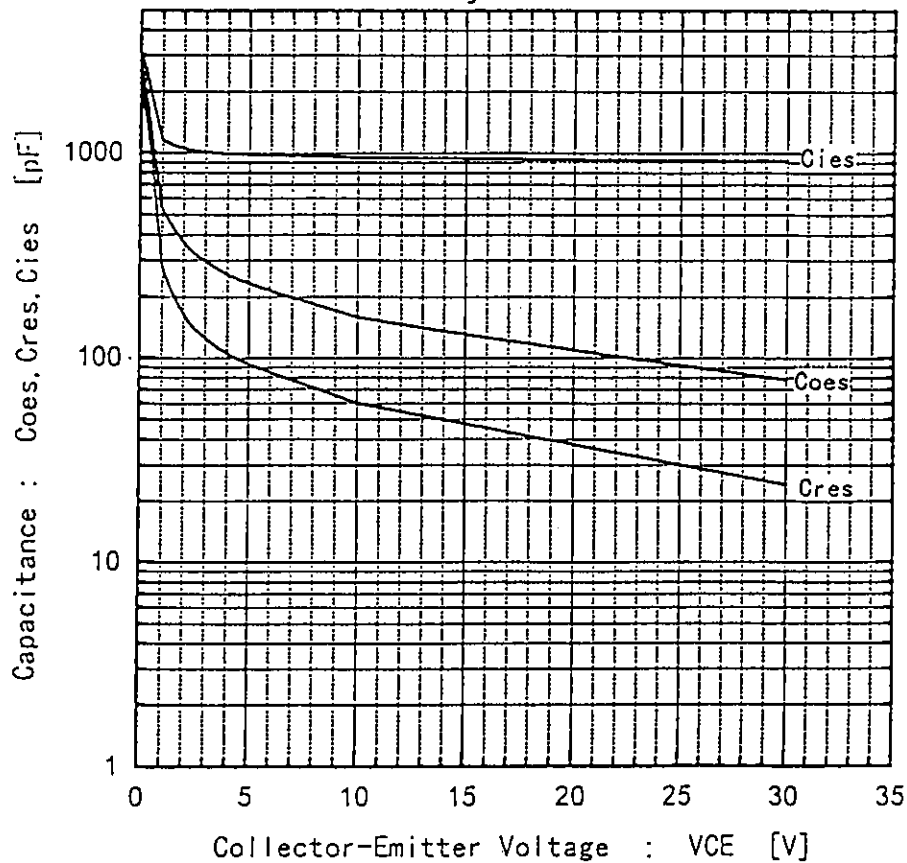
Dynamic input characteristics

Tj=25°C



Capacitance vs. Collector-Emitter voltage

Tj=25°C



Fuji Electric Co., Ltd.

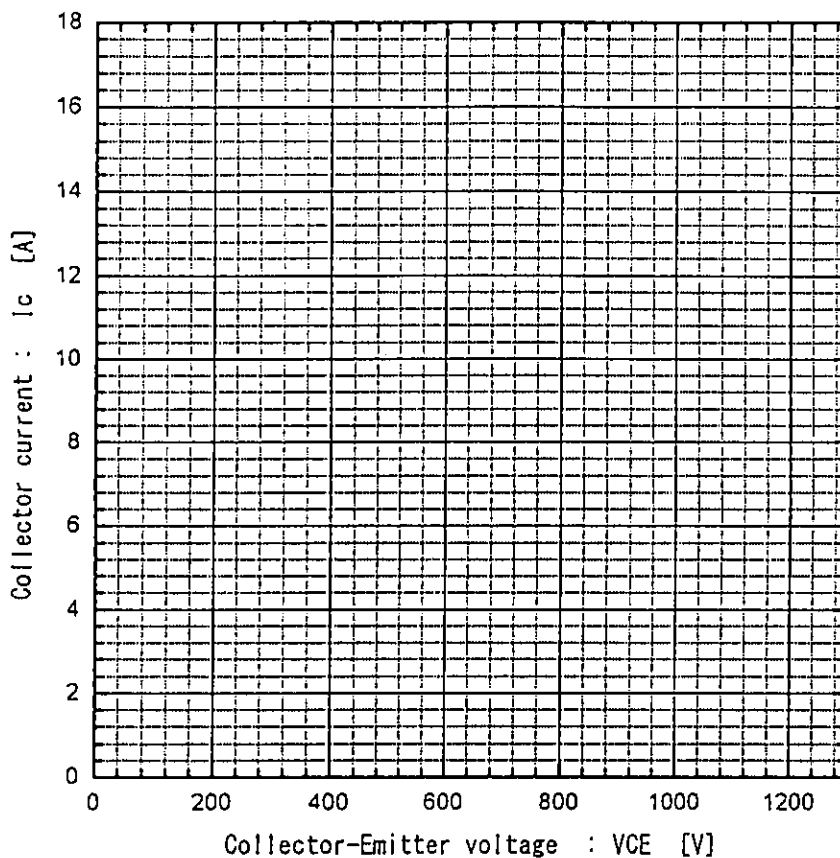
DWG. NO.

8/12

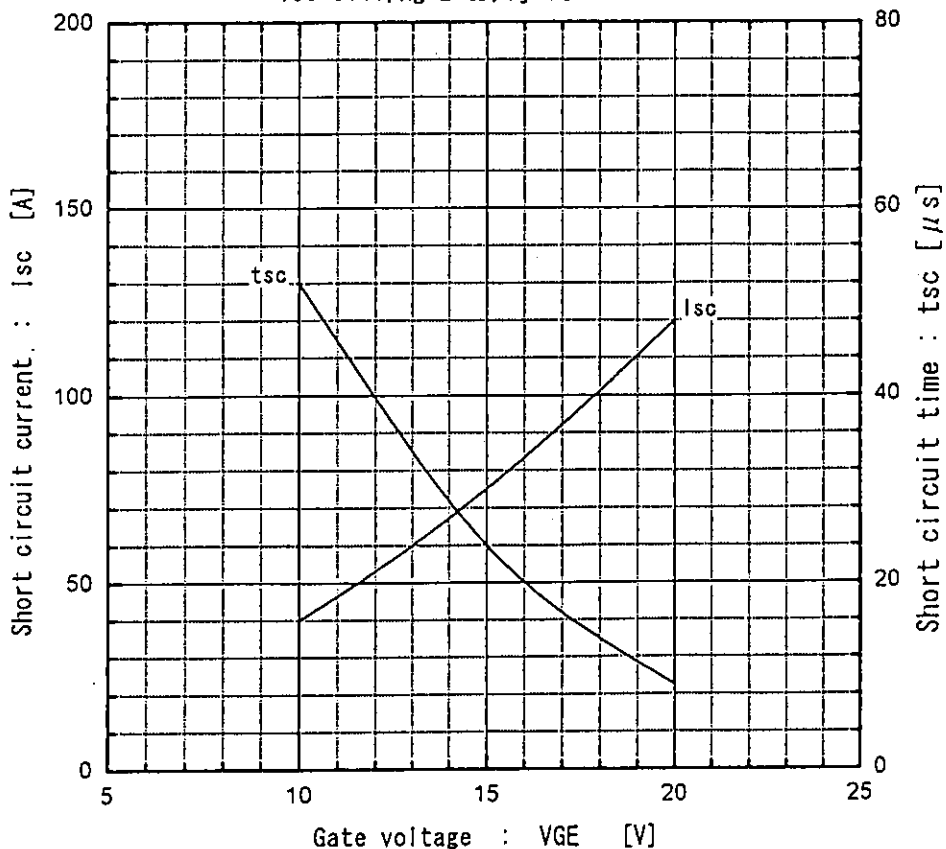
H04-004-03

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 Biased Safe Operating Area
 $+V_{GE}=15V, -V_{GE} \leq 15V, T_j \leq 125^\circ C, R_G \geq 20\Omega$



Typical short circuit capability
 $V_{CC}=800V, R_G=20\Omega, T_j=125^\circ C$



Fuji Electric Co., Ltd

DWGNO.

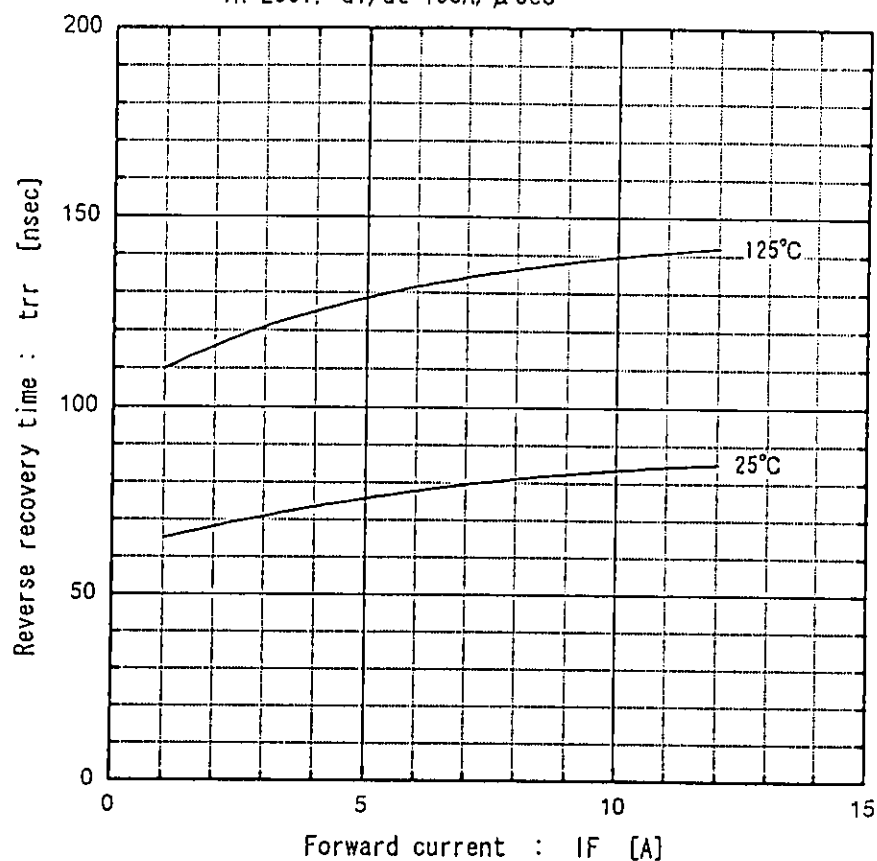
9/12

a

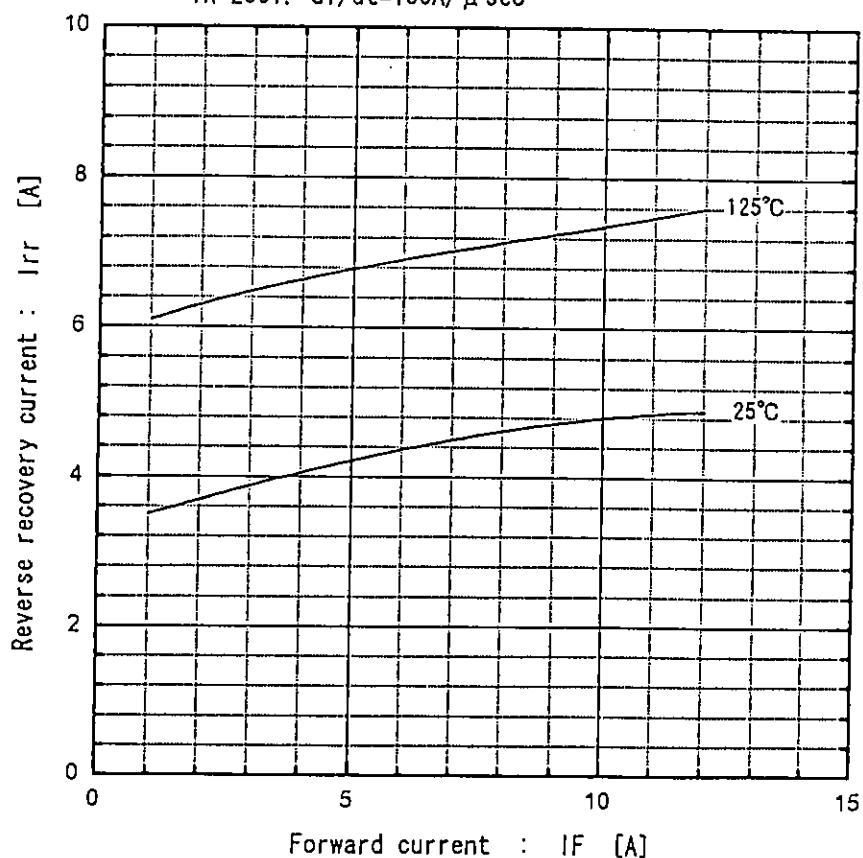
H04-004-03

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.

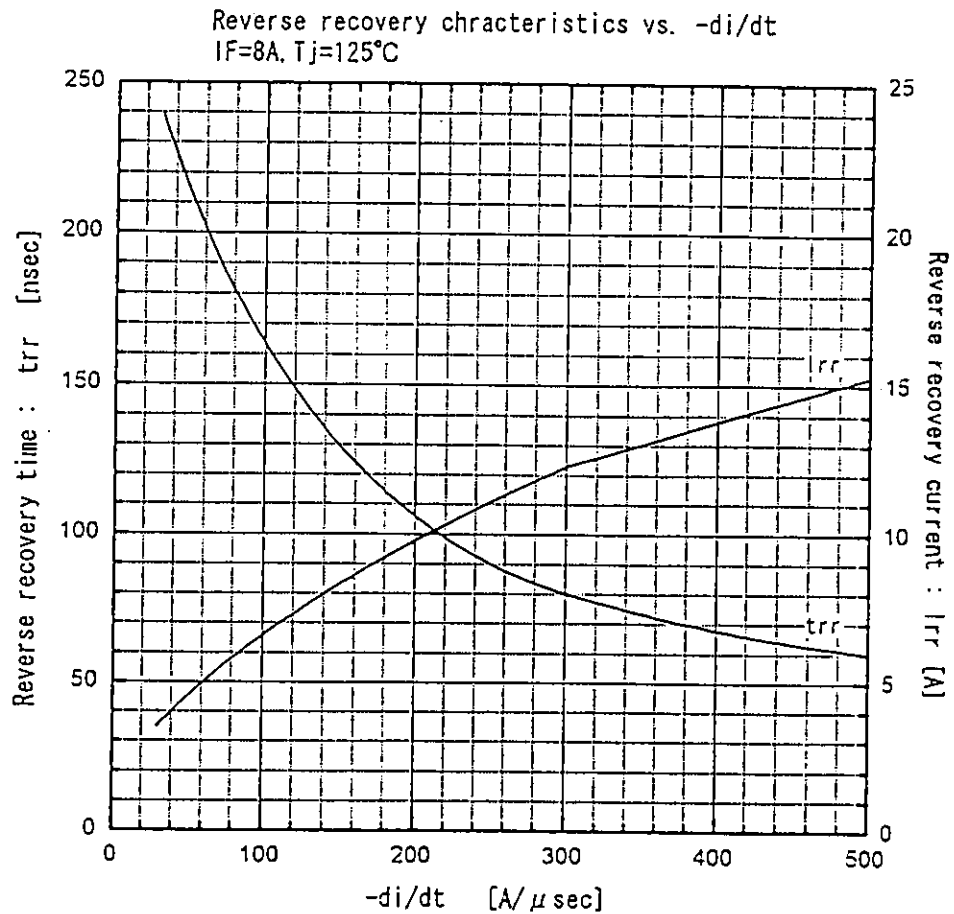
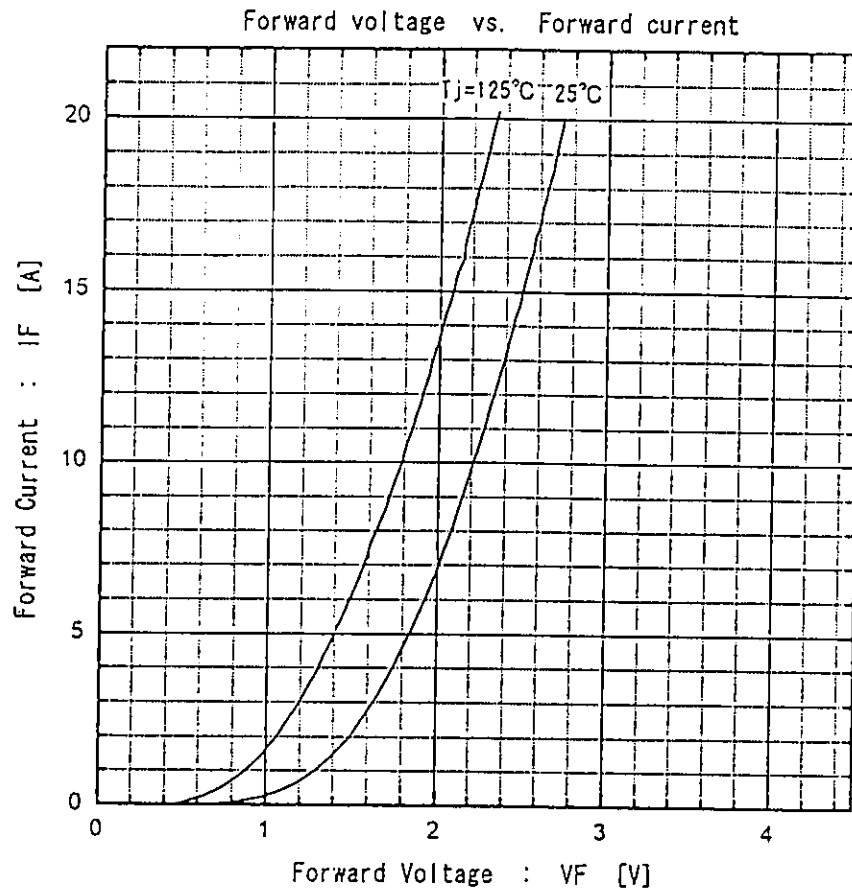
DWG NO.

10/12

21

H04-004-03

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.



Fuji Electric Co., Ltd.

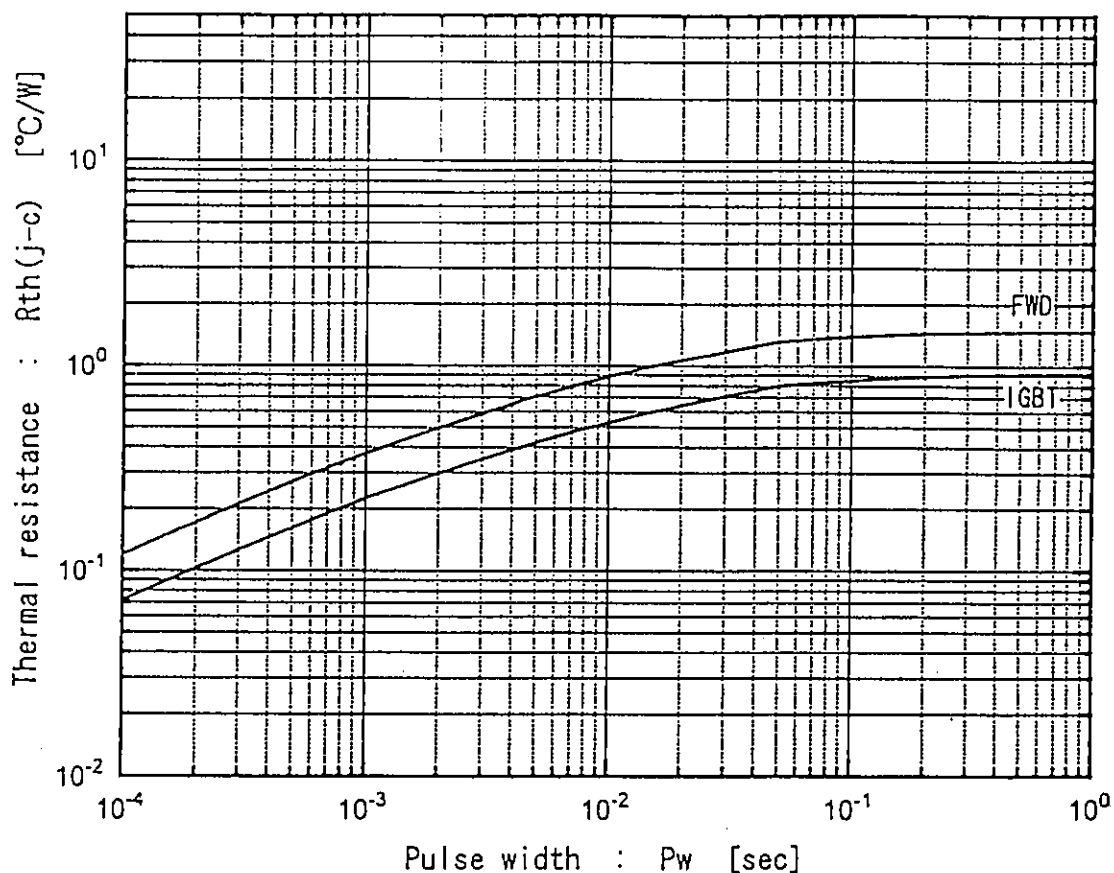
DWG. NO.

11/12

H04-004-03

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.

Transient thermal resistance



Fuji Electric Co., Ltd.

DWG. NO.

12/12

H04-004-03

For more information, contact:

Collmer Semiconductor, Inc.

P.O. Box 702708

Dallas, TX 75370

972-233-1589

972-233-0481 Fax

<http://www.collmer.com>