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
DRAWN			
CHECKED			

Fuji Electric Co.,Ltd.

DWG.NO.

a

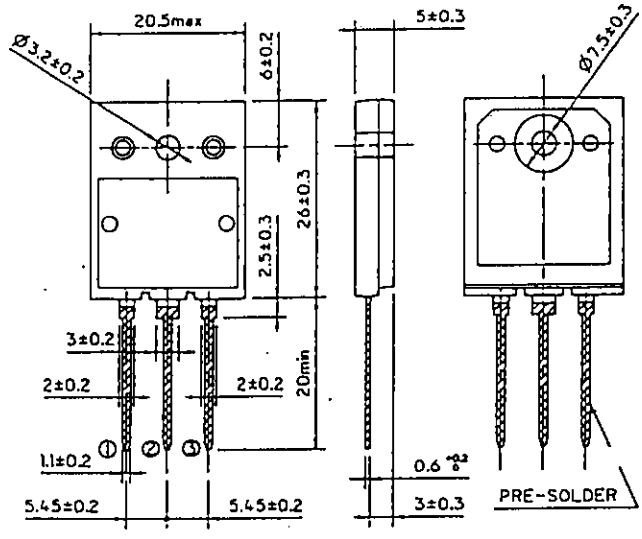
1/12

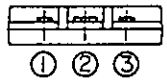
H04-004-07

Ratings and characteristics of Fuji IGBT

1MBH08D-120

1. Outline Drawing

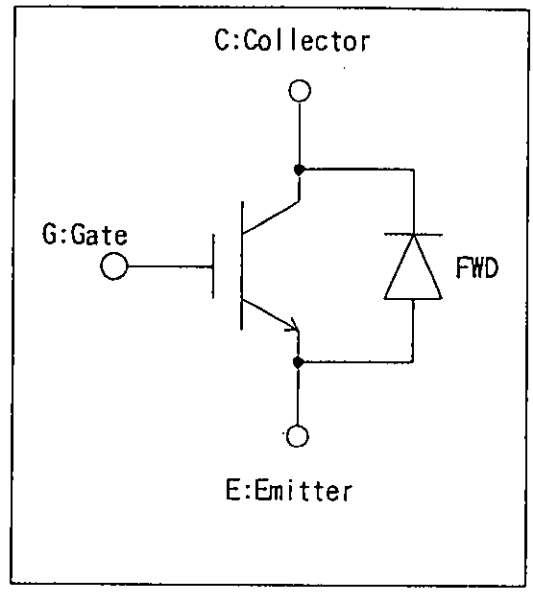




CONNECTION

① GATE
② COLLECTOR
③ EMITTER

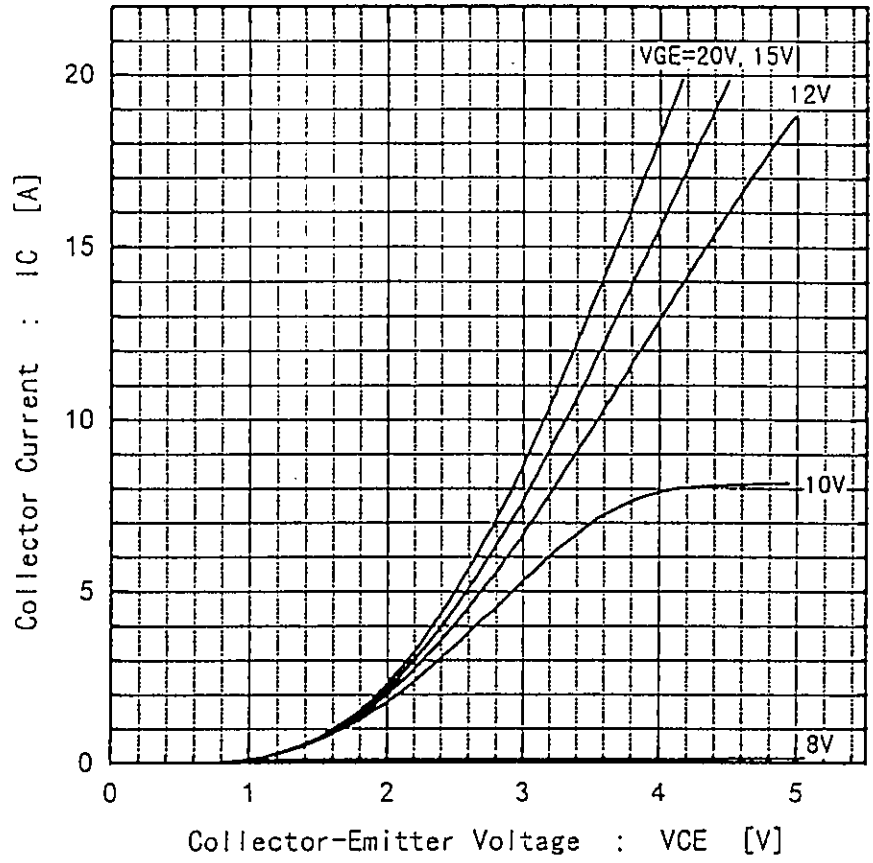
2. Equivalent circuit



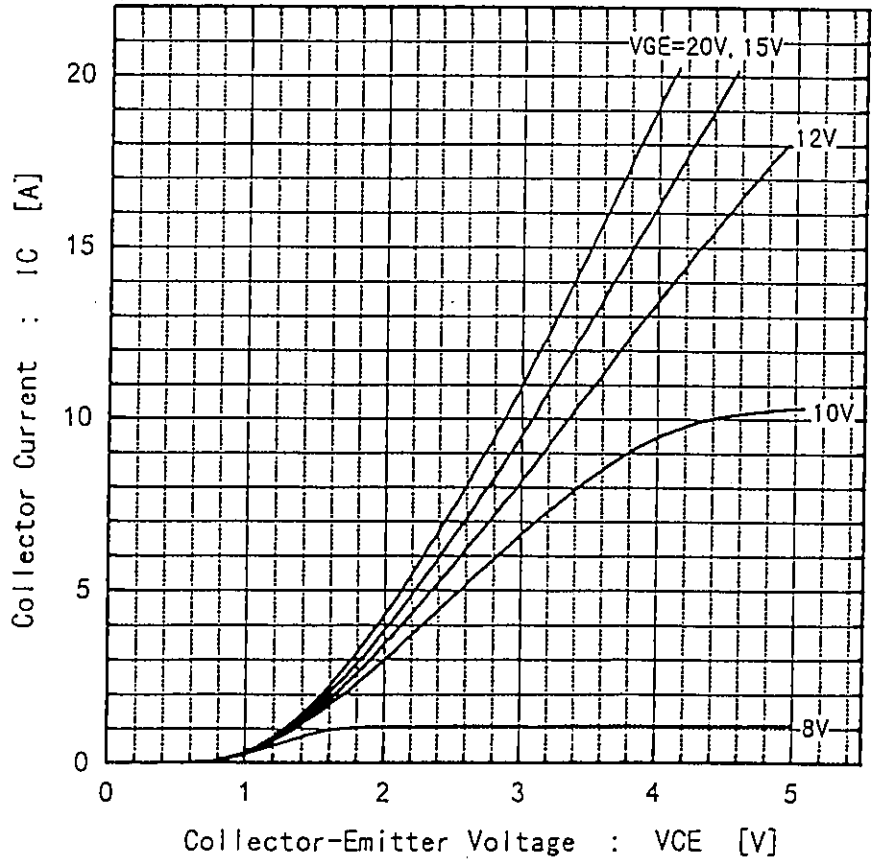
3. Absolute maximum ratings (Tc=25℃)

Items			Symbols	Ratings	Units
Collector-Emitter Voltage			V_{CES}	1200	V
Gate-Emitter Voltage			V_{GES}	±20	V
Collector Current	DC	Tc=25 ℃	Ic_{25}	15	A
		Tc=105℃	Ic_{105}	8	A
	1ms	Tc=25 ℃	Icp	39	A
IGBT Max. Power Dissipation			Pc	135	W
FWD Max. Power Dissipation			Pc	85	W
Operating Temperature			Tj	+ 150	℃
Storage Temperature			Tstg	-40 ～ +150	℃
Mounting Screw Torque			——	70	N・cm

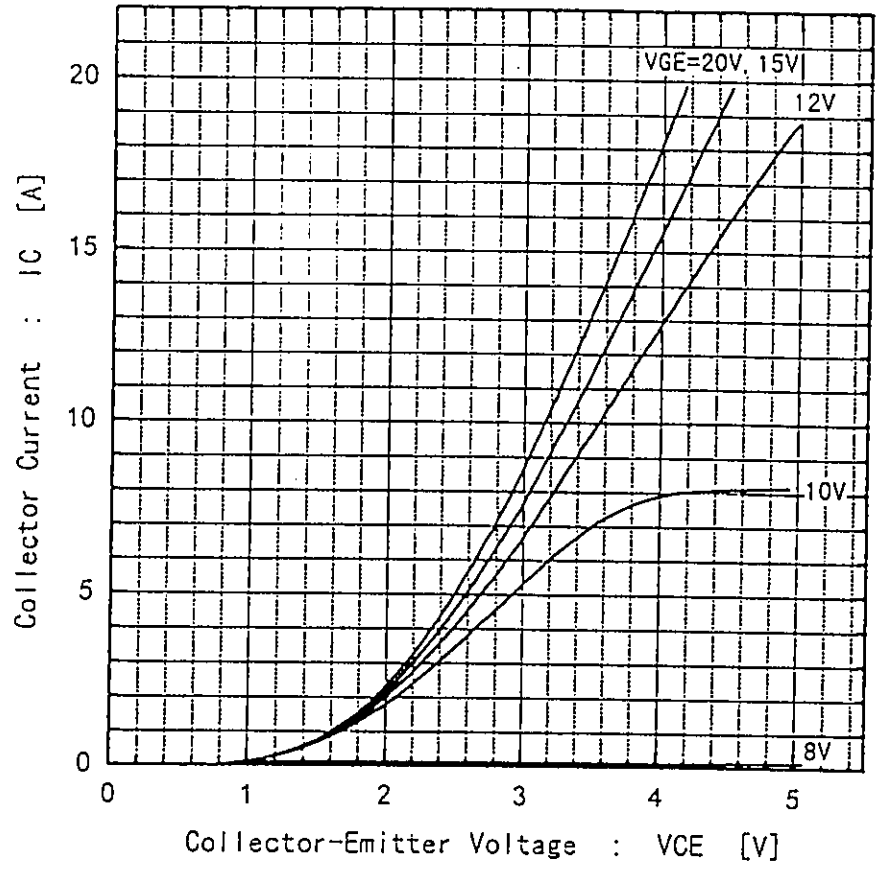
Collector Current vs. Collector-Emitter Voltage
Tj=25°C



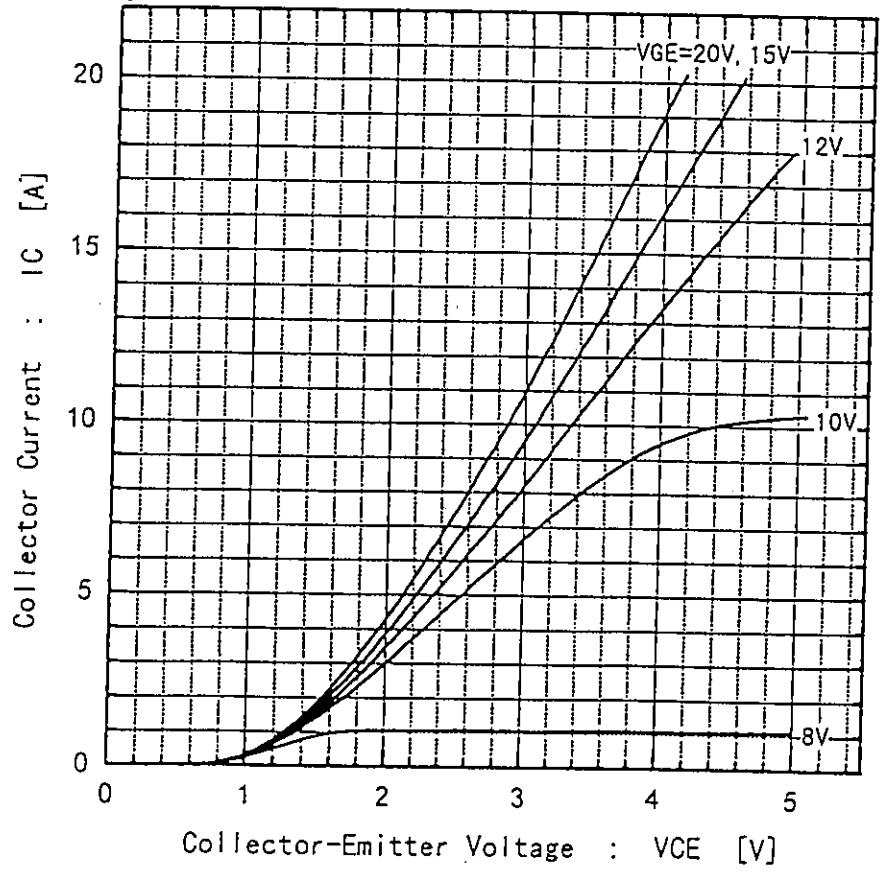
Collector Current vs. Collector-Emitter Voltage
Tj=25°C



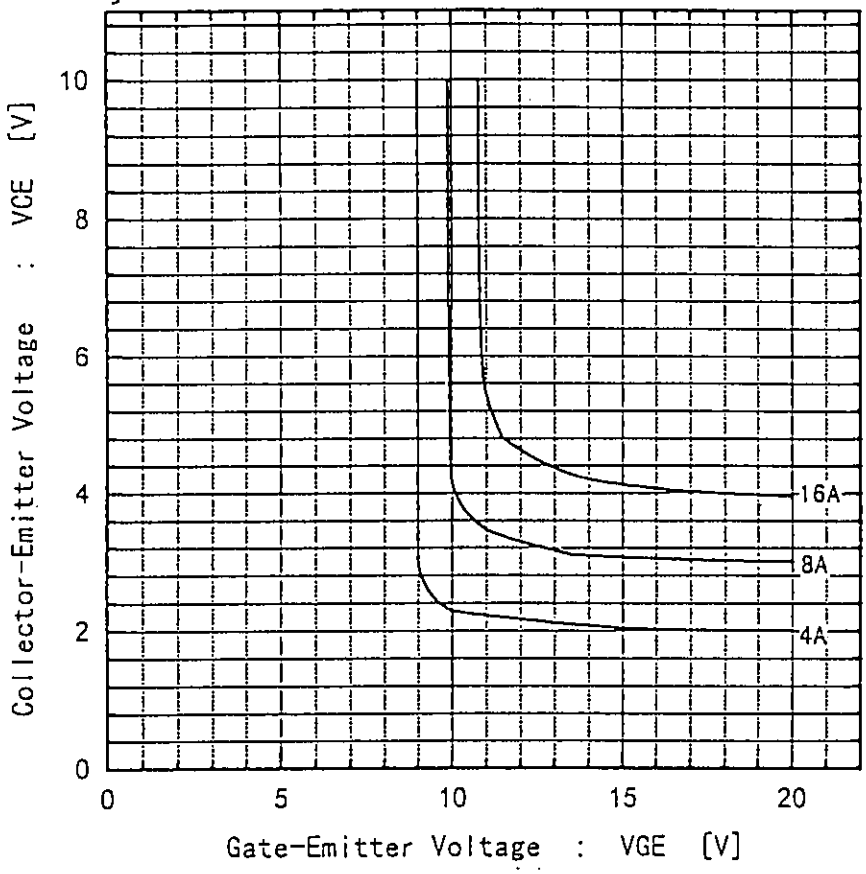
Collector Current vs. Collector-Emitter Voltage
Tj=25°C



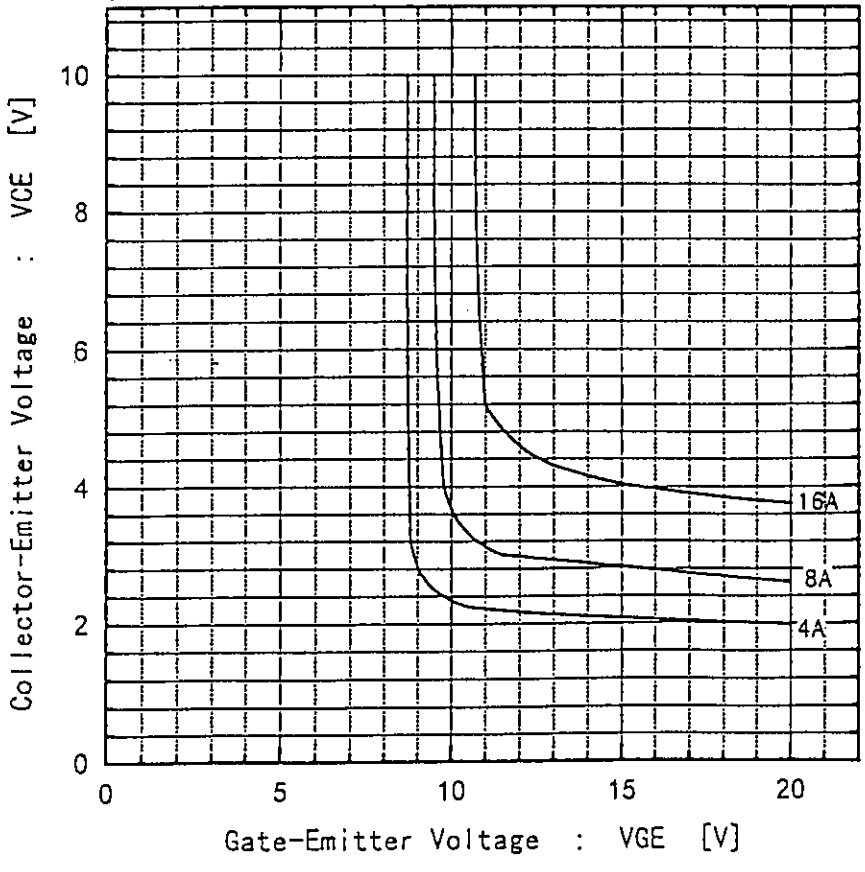
Collector Current vs. Collector-Emitter Voltage
Tj=25°C



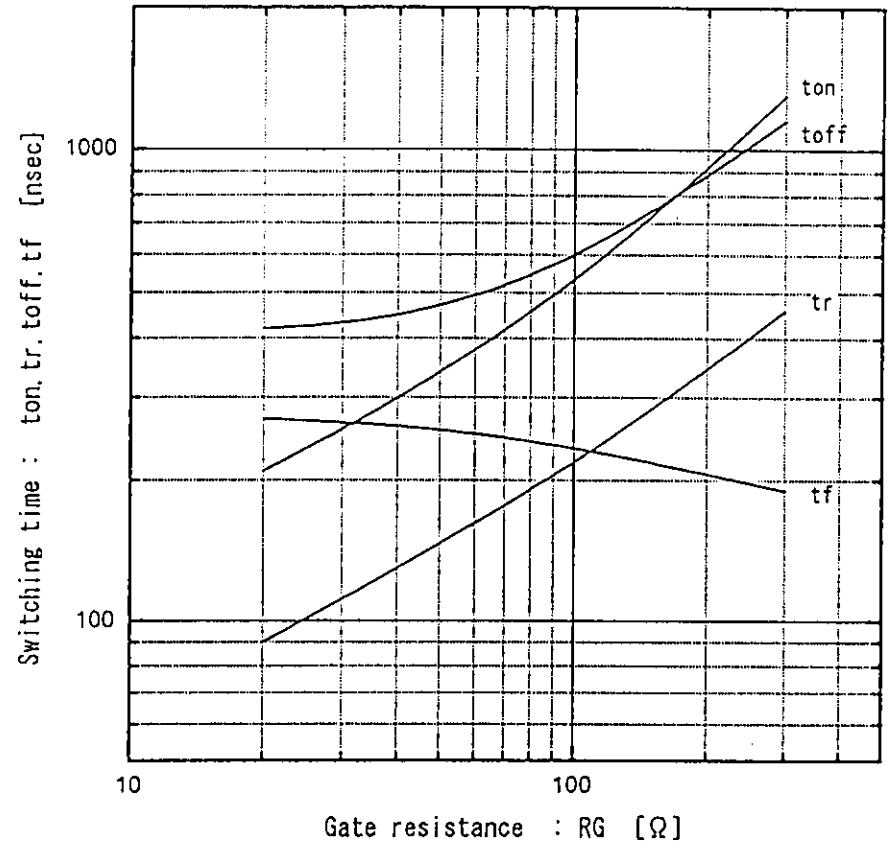
Collector-Emitter Voltage vs Gate-Emitter Voltage
Tj=25℃



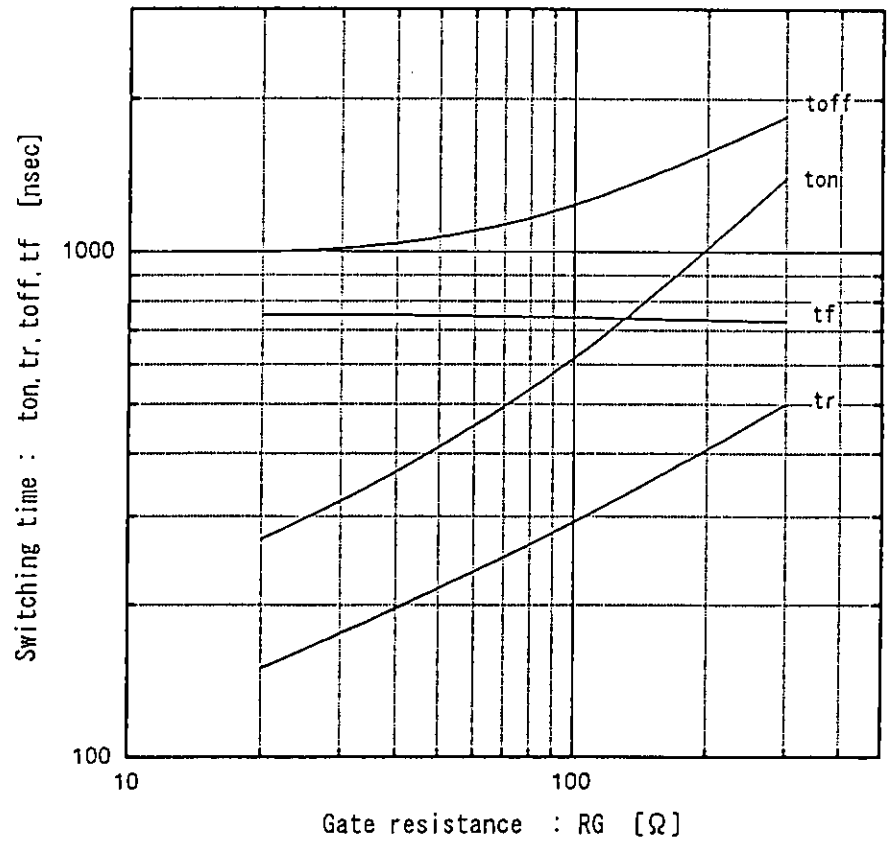
Collector-Emitter Voltage vs Gate-Emitter Voltage
Tj=125℃



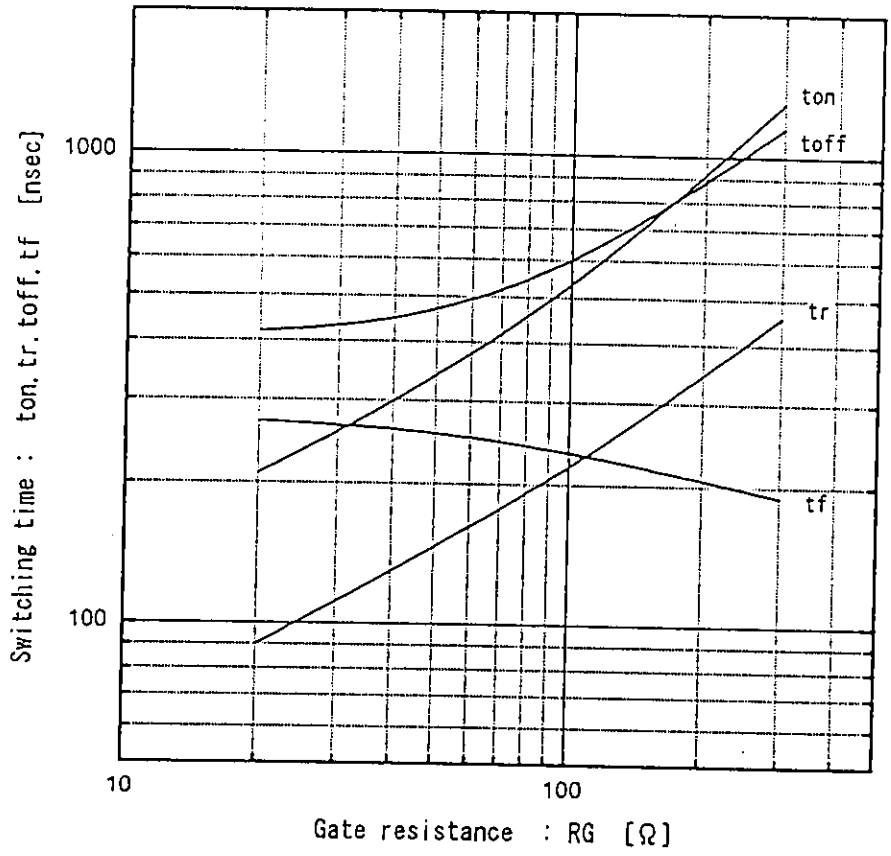
Switching time vs. RG
Vcc=600V, IC=8A, VGE=±15V, Tj=25°C



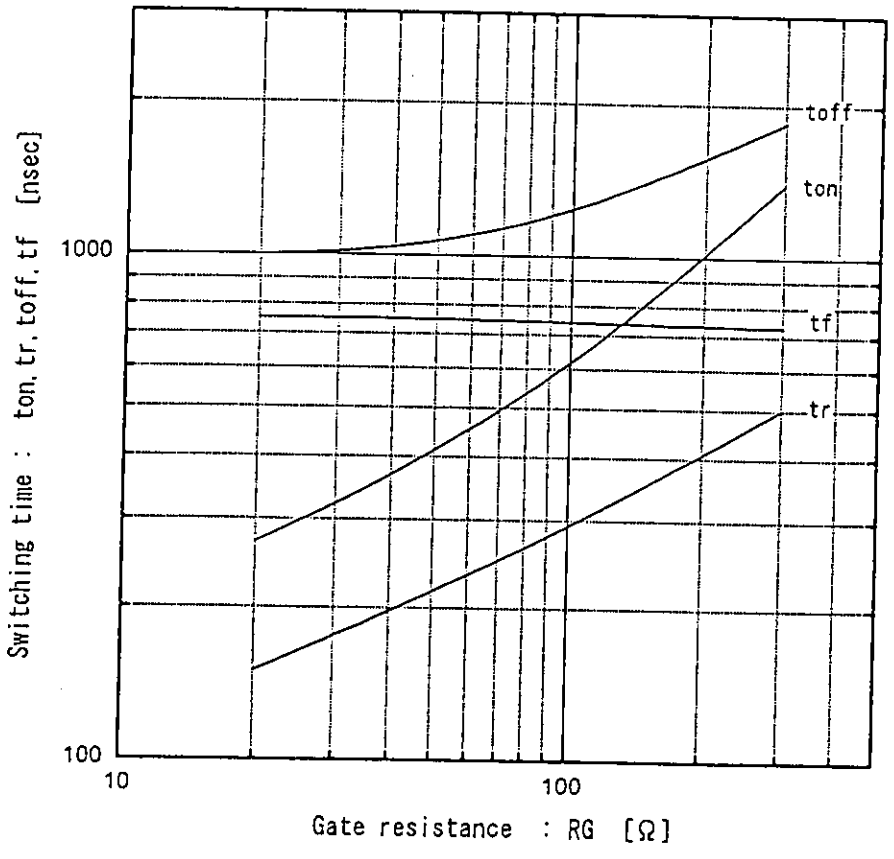
Switching time vs. RG
Vcc=600V, IC=8A, VGE=±15V, Tj=125°C



Switching time vs. RG
Vcc=600V, IC=8A, VGE=±15V, Tj=25°C

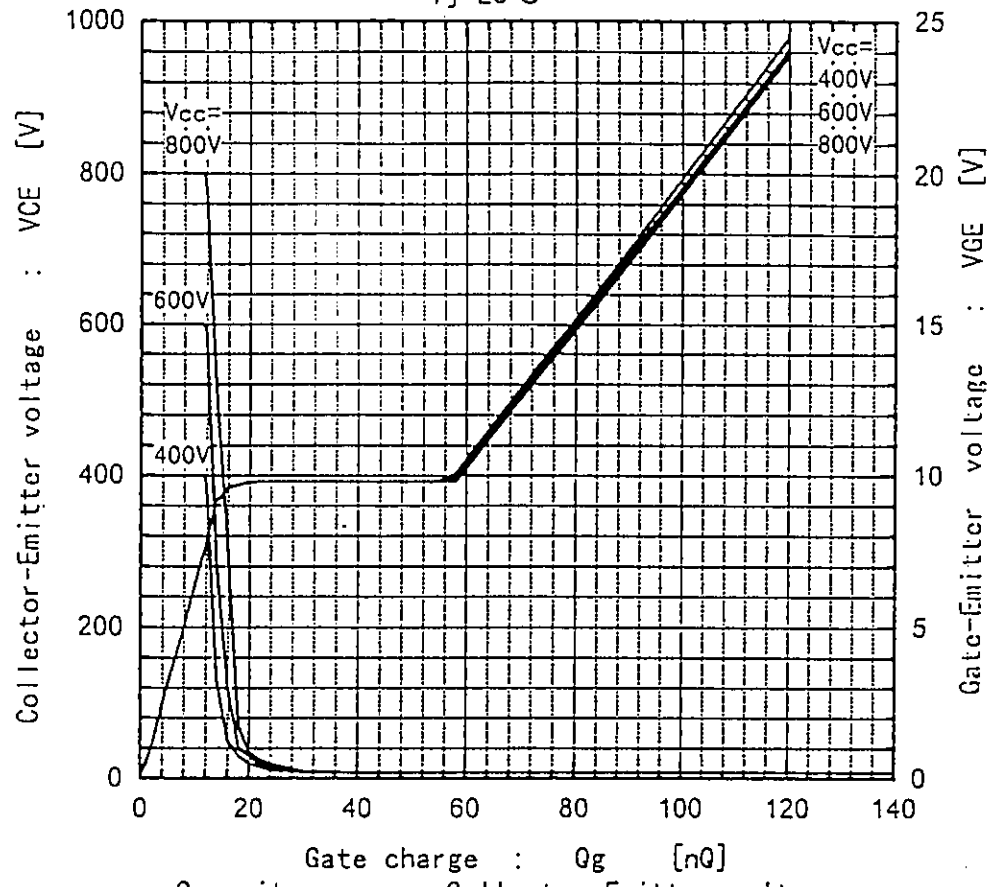


Switching time vs. RG
Vcc=600V, IC=8A, VGE=±15V, Tj=125°C



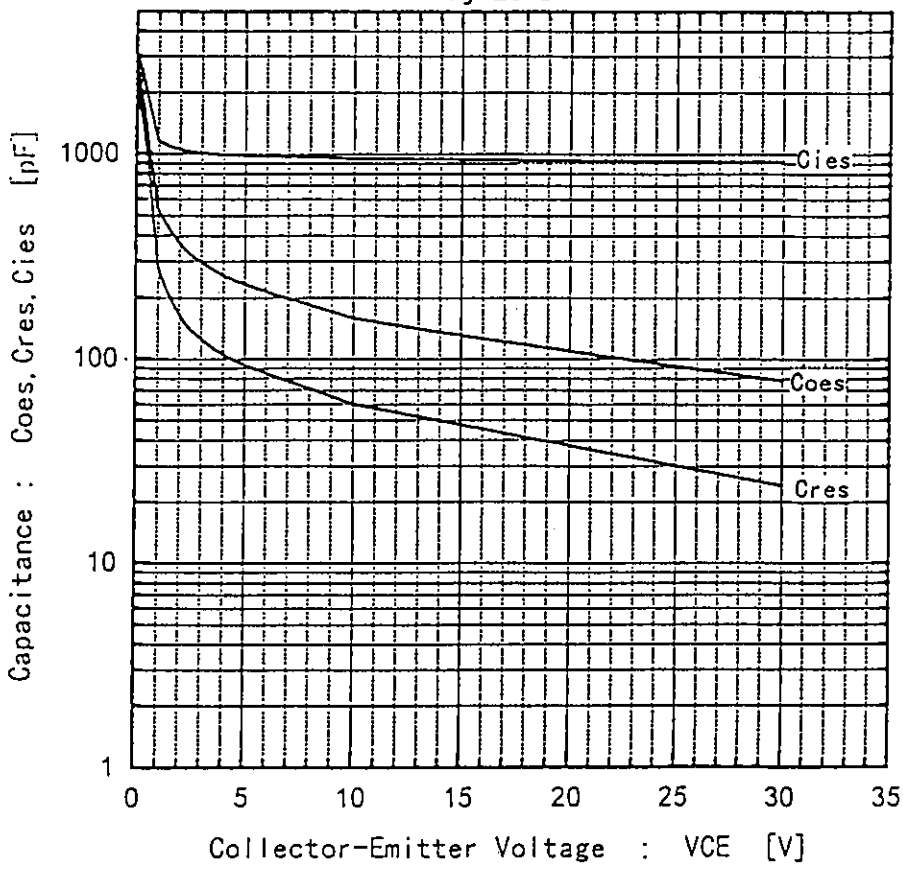
Dynamic input characteristics

Tj=25°C



Capacitance vs. Collector-Emitter voltage

Tj=25°C

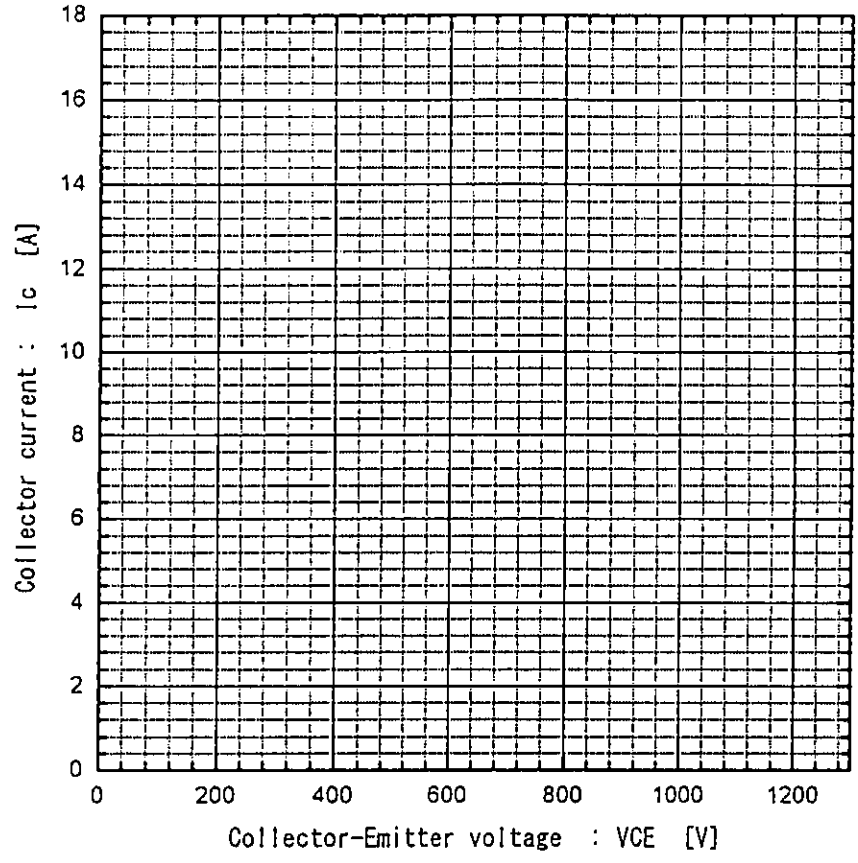


Fuji Electric Co.,Ltd.

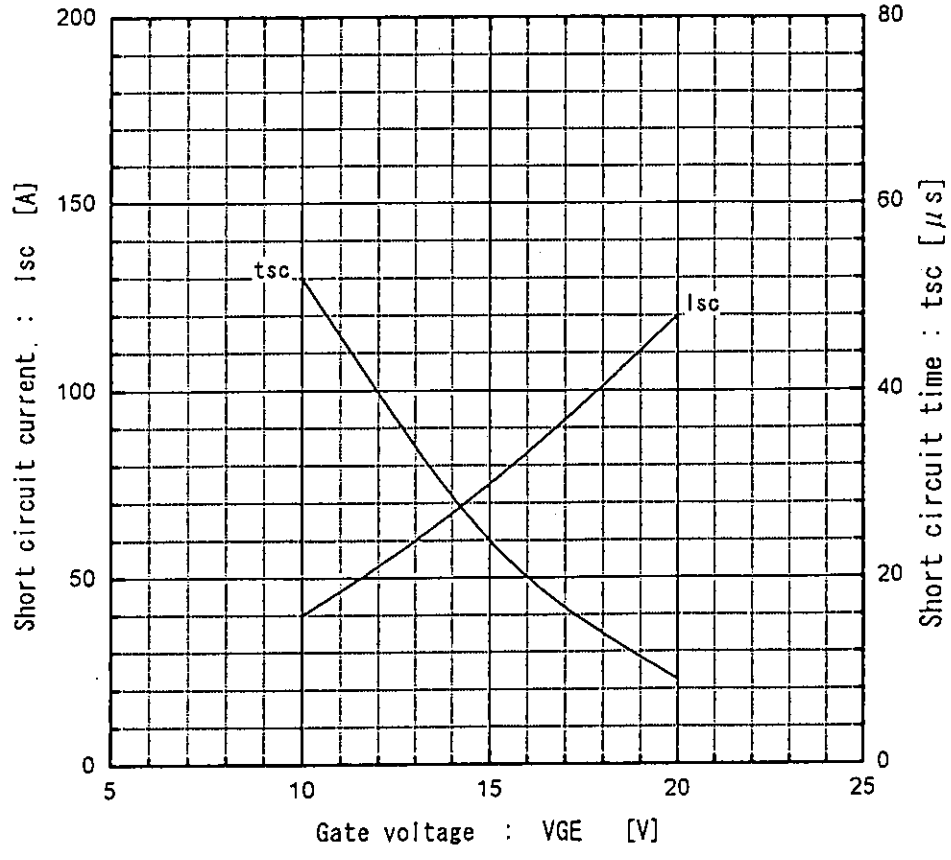
DWG.NO.

H04-004-03

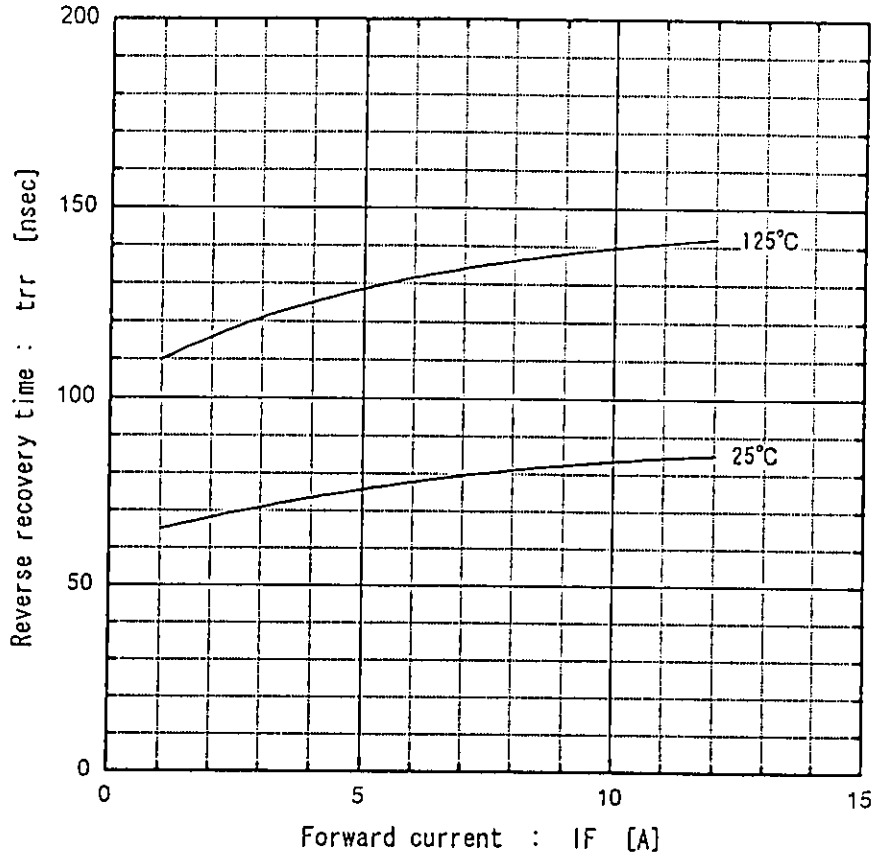
Reverse Biased Safe Operating Area
+VGE=15V, -VGE≦15V, Tj≦125°C, RG≧20Ω



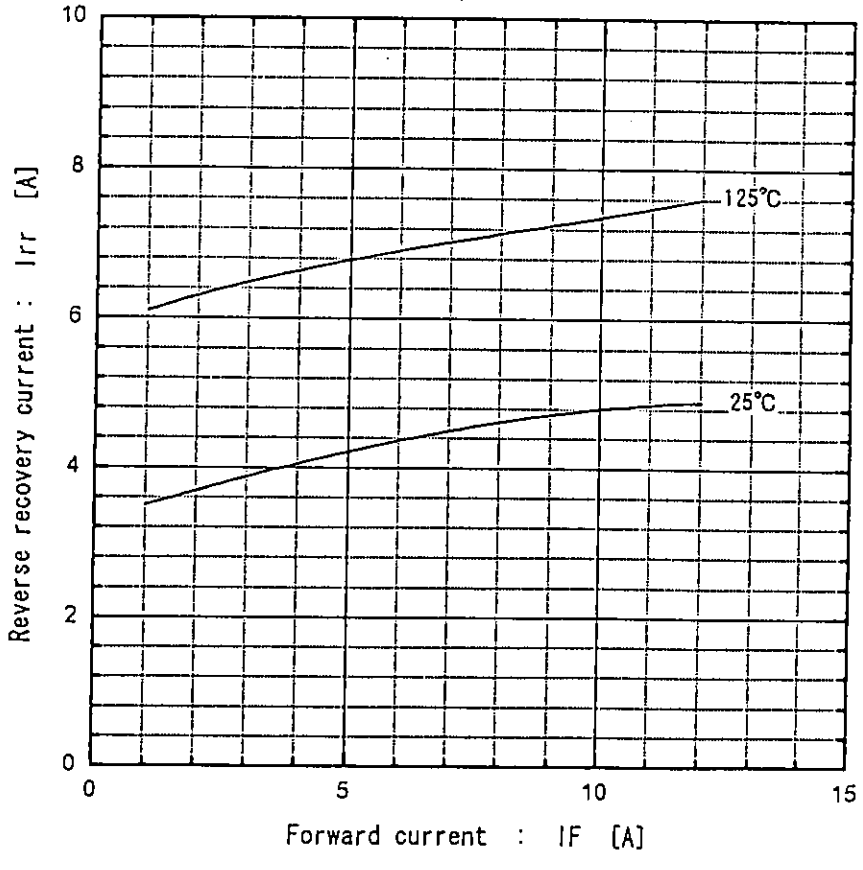
Typical short circuit capability
Vcc=800V, Rg=20Ω, Tj=125°C



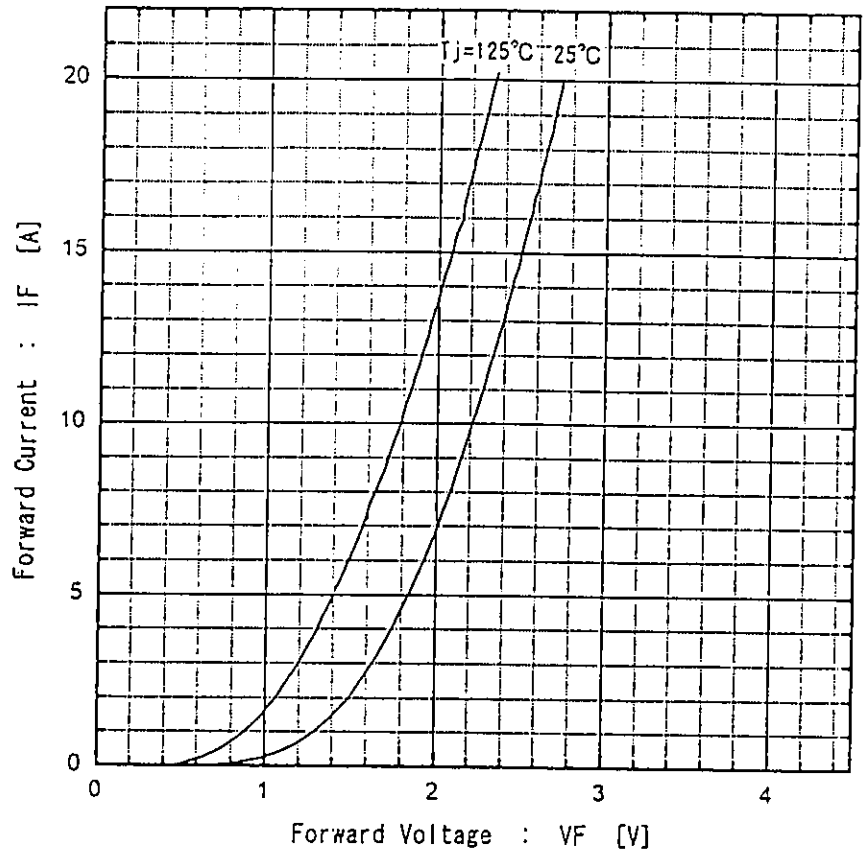
Reverse recovery time vs. Forward current
VR=200V. -di/dt=100A/μsec



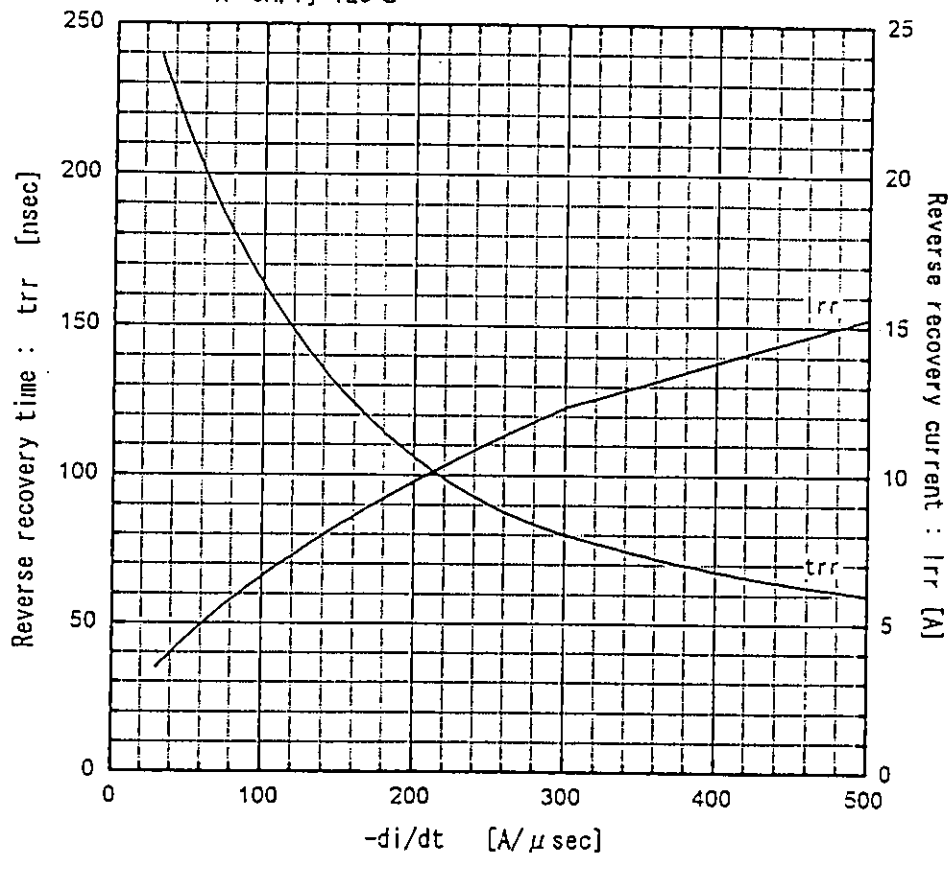
Reverse recovery current vs. Forward current
VR=200V. -di/dt=100A/μsec



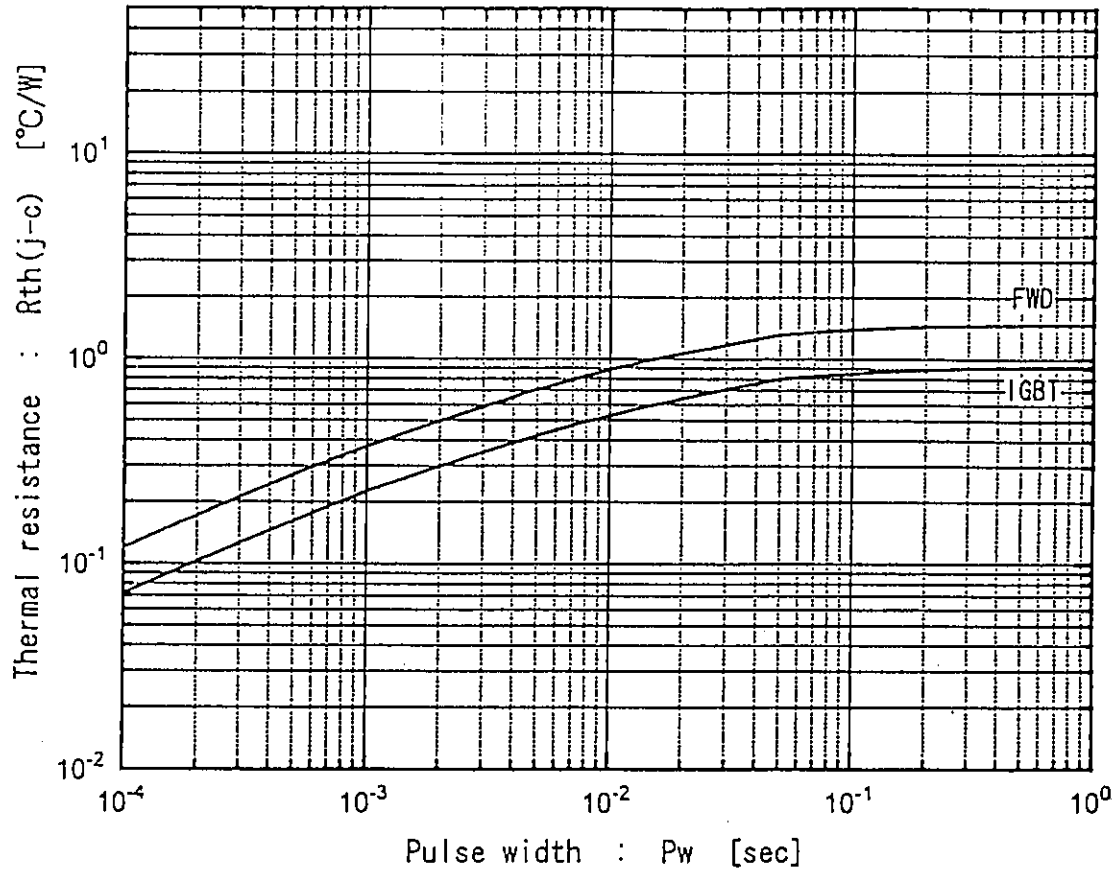
Forward voltage vs. Forward current



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



Transient thermal resistance



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