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.

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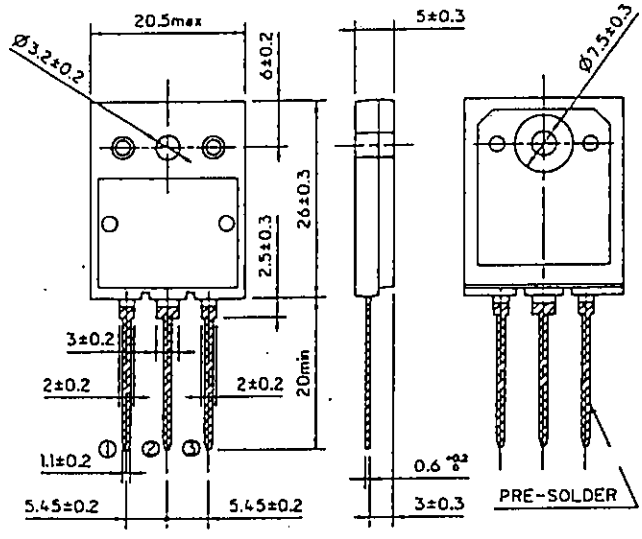
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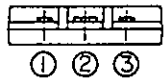
H04-004-07

Ratings and characteristics of Fuji IGBT

1MBH08D-120

1. Outline Drawing

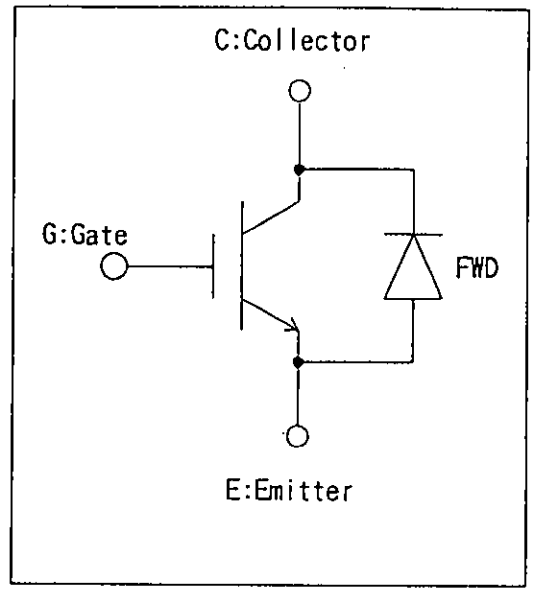




CONNECTION

① GATE
② COLLECTOR
③ EMITTER

2. Equivalent circuit

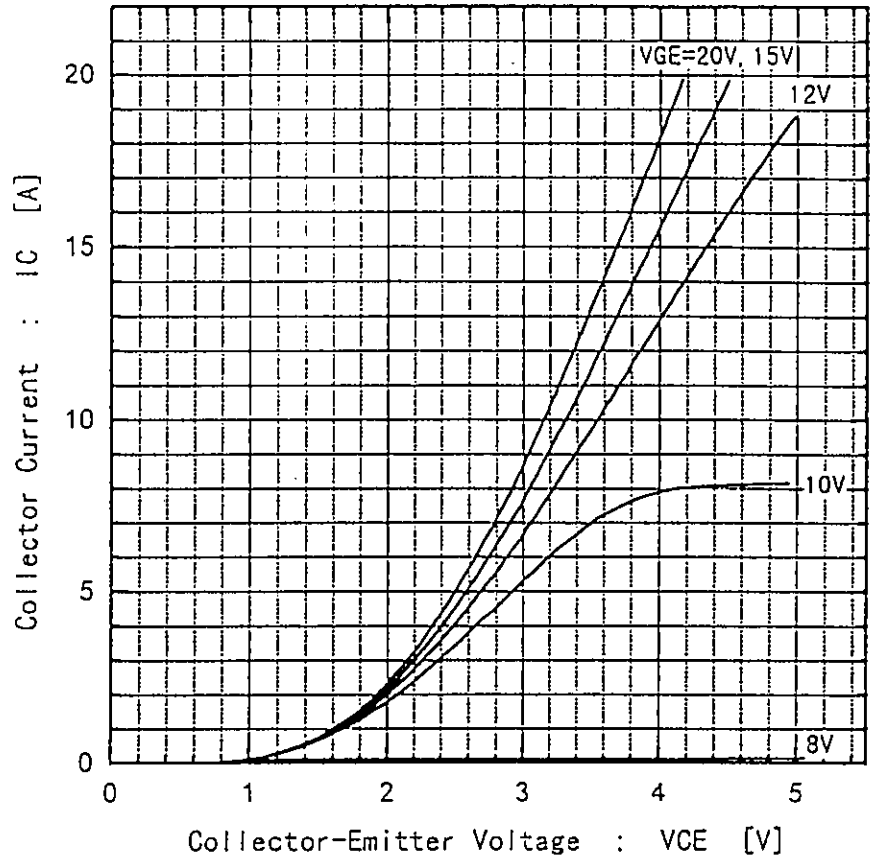


3. Absolute maximum ratings (Tc=25℃)

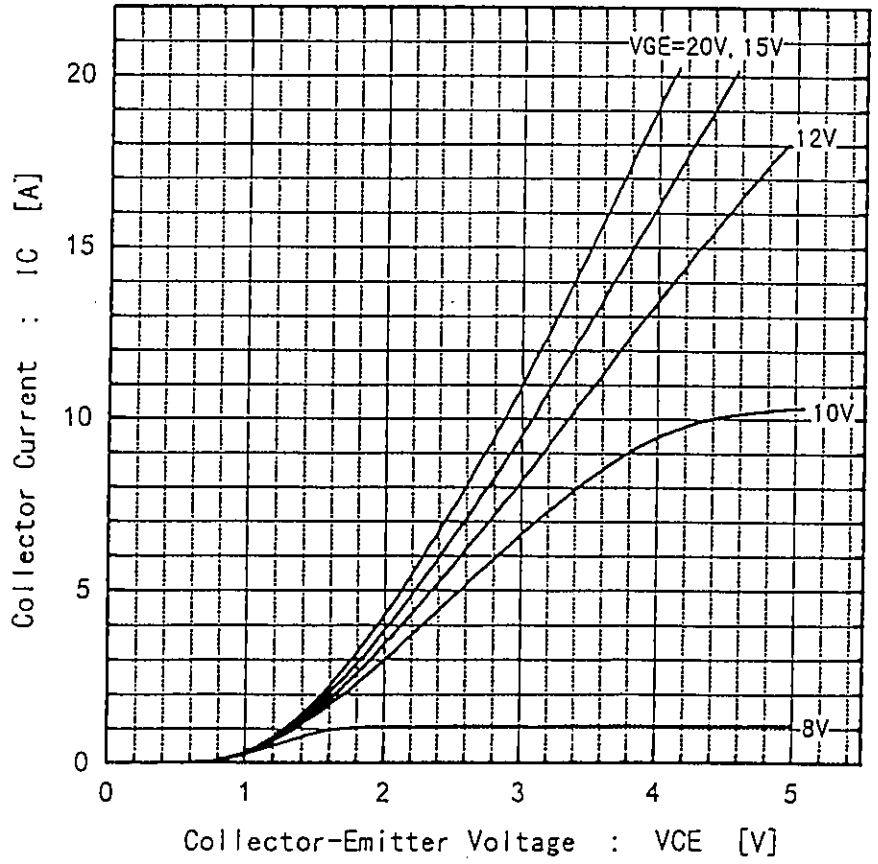
Items			Symbols	Ratings	Units
Collector-Emitter Voltage			V_{CES}	1200	V
Gate-Emitter Voltage			V_{GES}	±20	V
Collector Current	DC	Tc=25 ℃	Ic_{25}	15	A
		Tc=105℃	Ic_{105}	8	A
	1ms	Tc=25 ℃	Icp	39	A
IGBT Max. Power Dissipation			Pc	135	W
FWD Max. Power Dissipation			Pc	85	W
Operating Temperature			Tj	+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

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

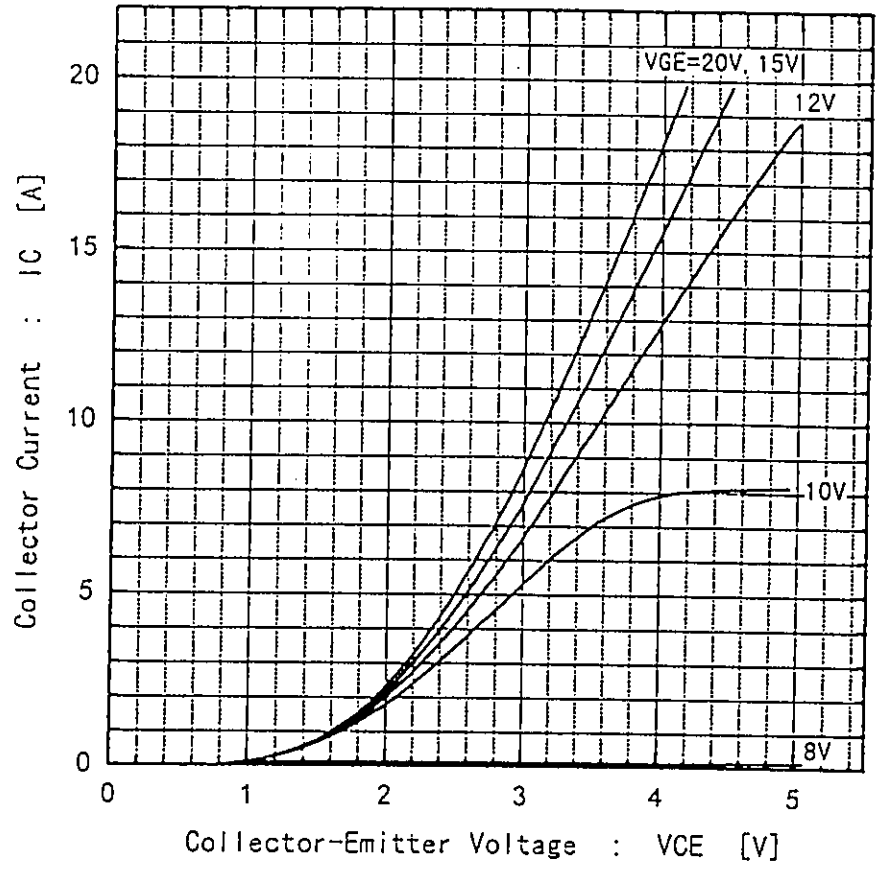


Collector Current vs. Collector-Emitter Voltage
Tj=25°C

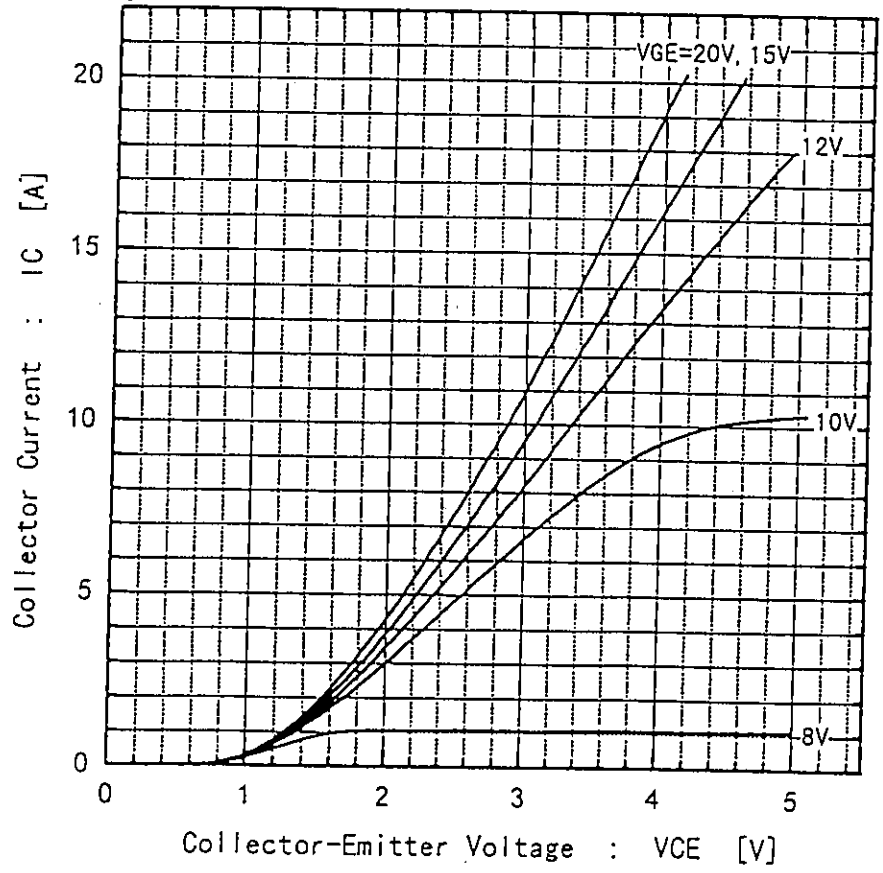


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Tj=25°C

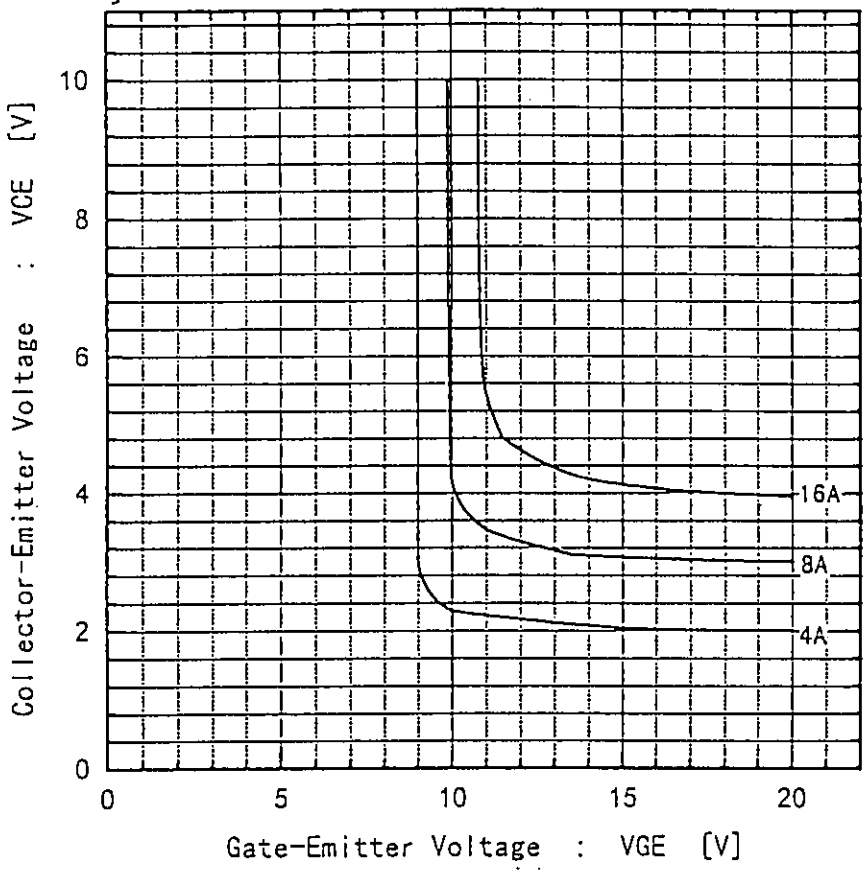


Collector Current vs. Collector-Emitter Voltage
Tj=25°C

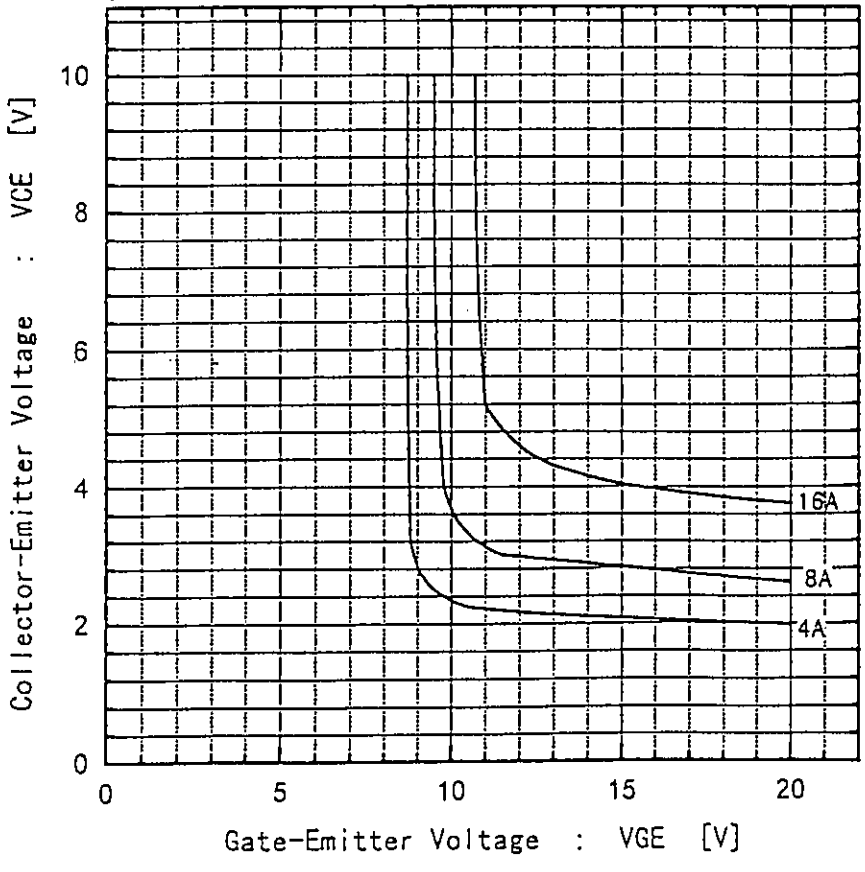


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Collector-Emitter Voltage vs Gate-Emitter Voltage
Tj=25℃

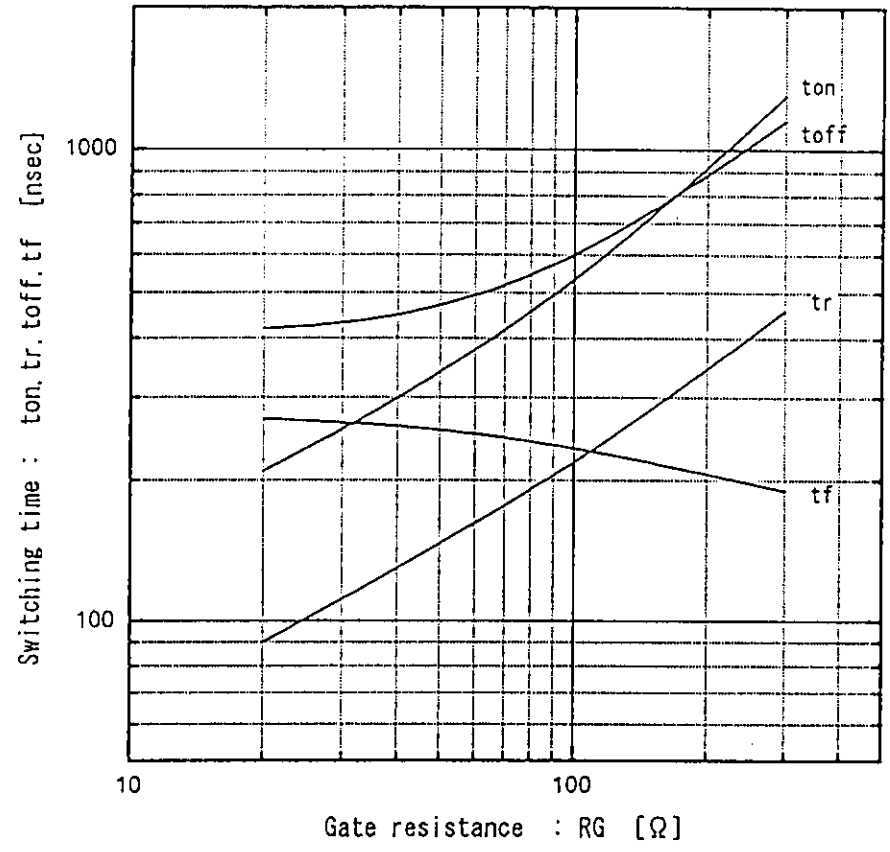


Collector-Emitter Voltage vs Gate-Emitter Voltage
Tj=125℃

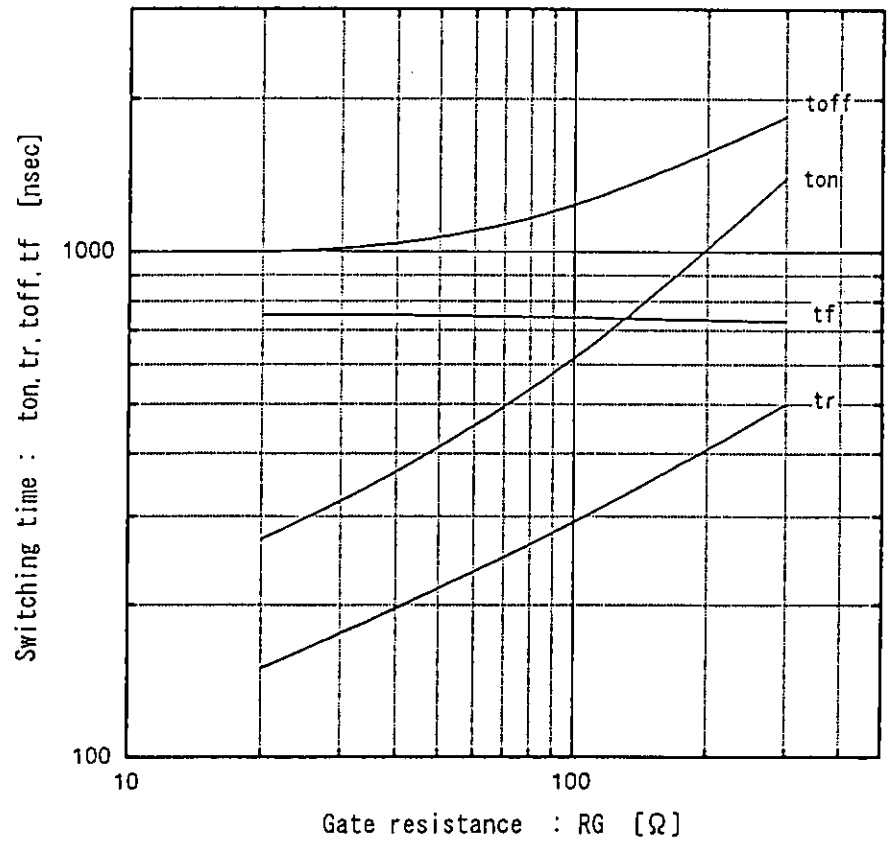


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Switching time vs. RG
Vcc=600V, IC=8A, VGE=±15V, Tj=25°C

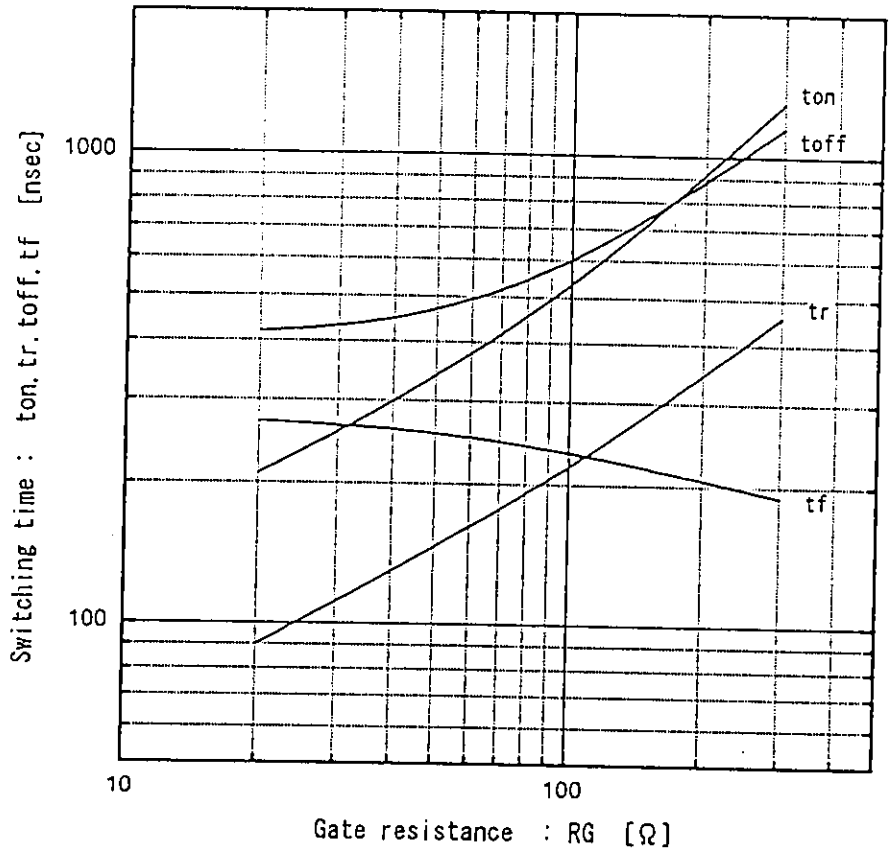


Switching time vs. RG
Vcc=600V, IC=8A, VGE=±15V, Tj=125°C

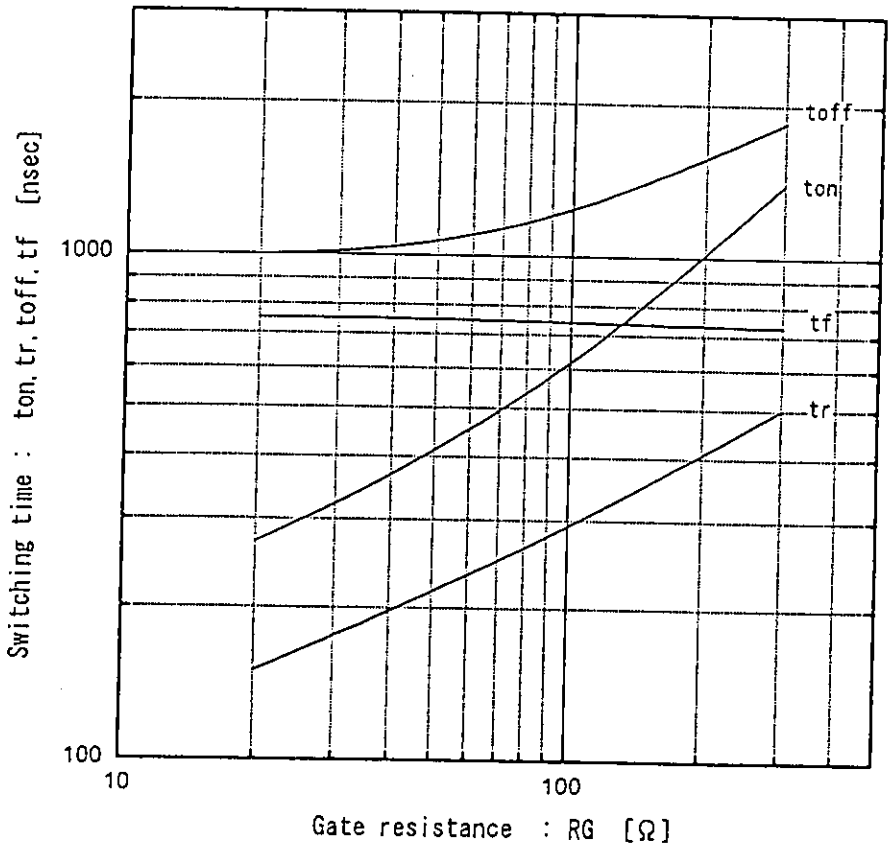


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Switching time vs. RG
Vcc=600V, IC=8A, VGE=±15V, Tj=25°C



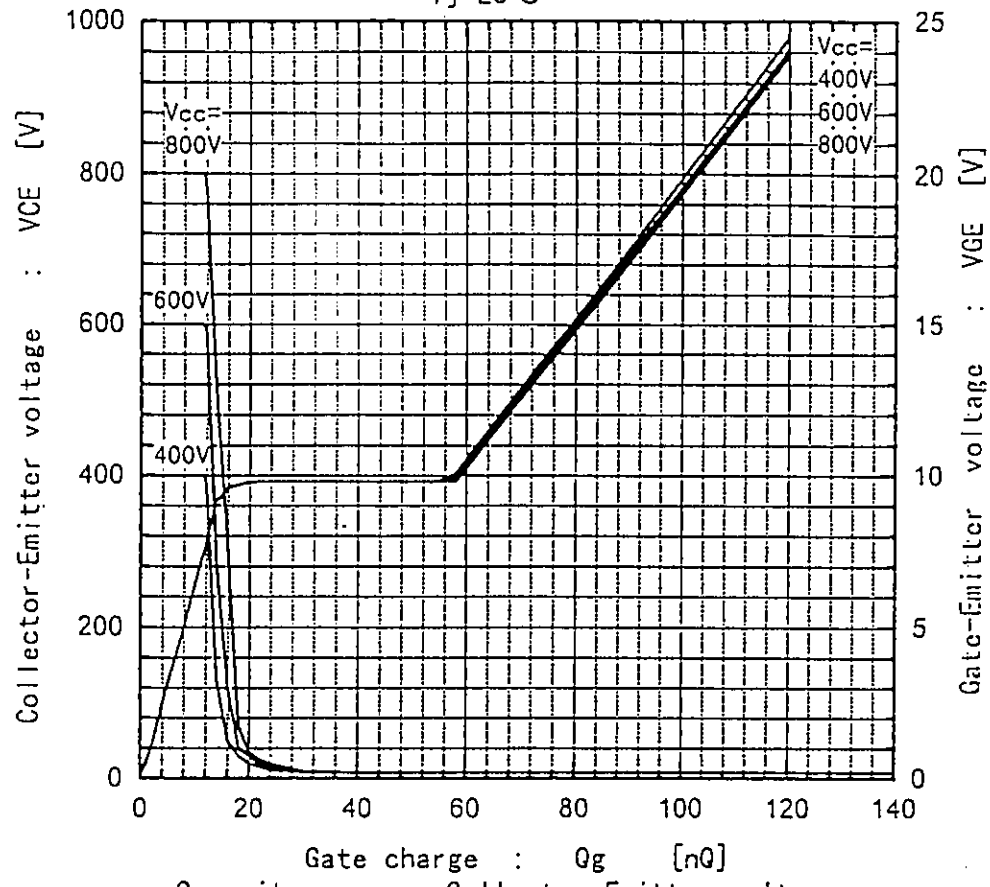
Switching time vs. RG
Vcc=600V, IC=8A, VGE=±15V, Tj=125°C



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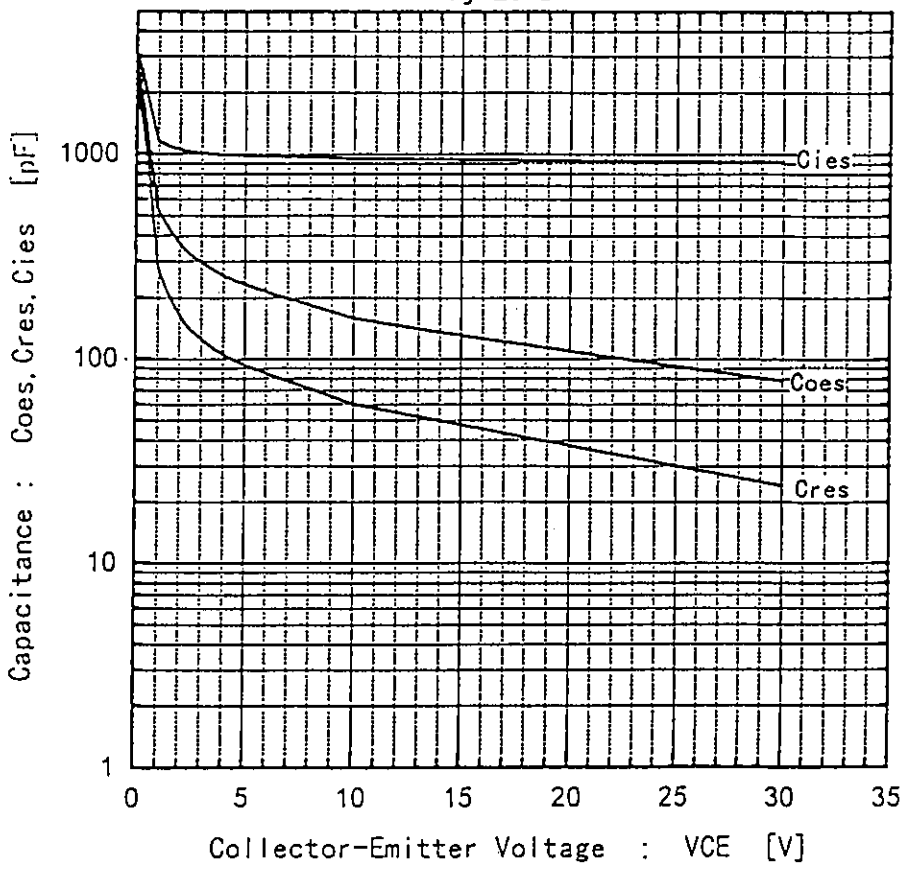
Dynamic input characteristics

Tj=25°C



Capacitance vs. Collector-Emitter voltage

Tj=25°C



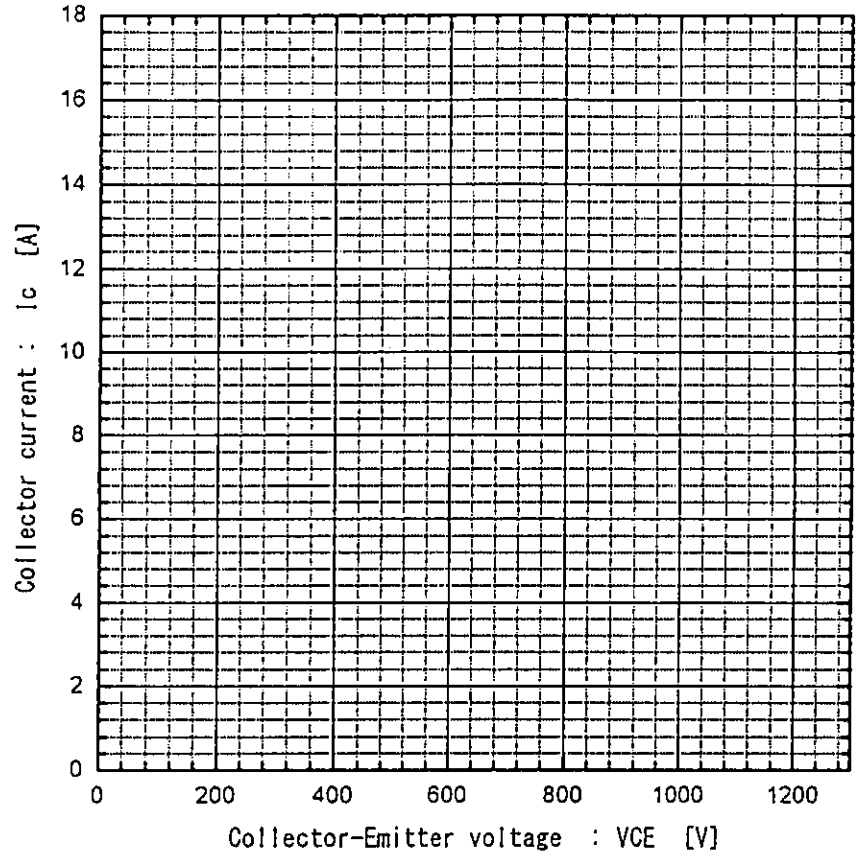
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DWG.NO.

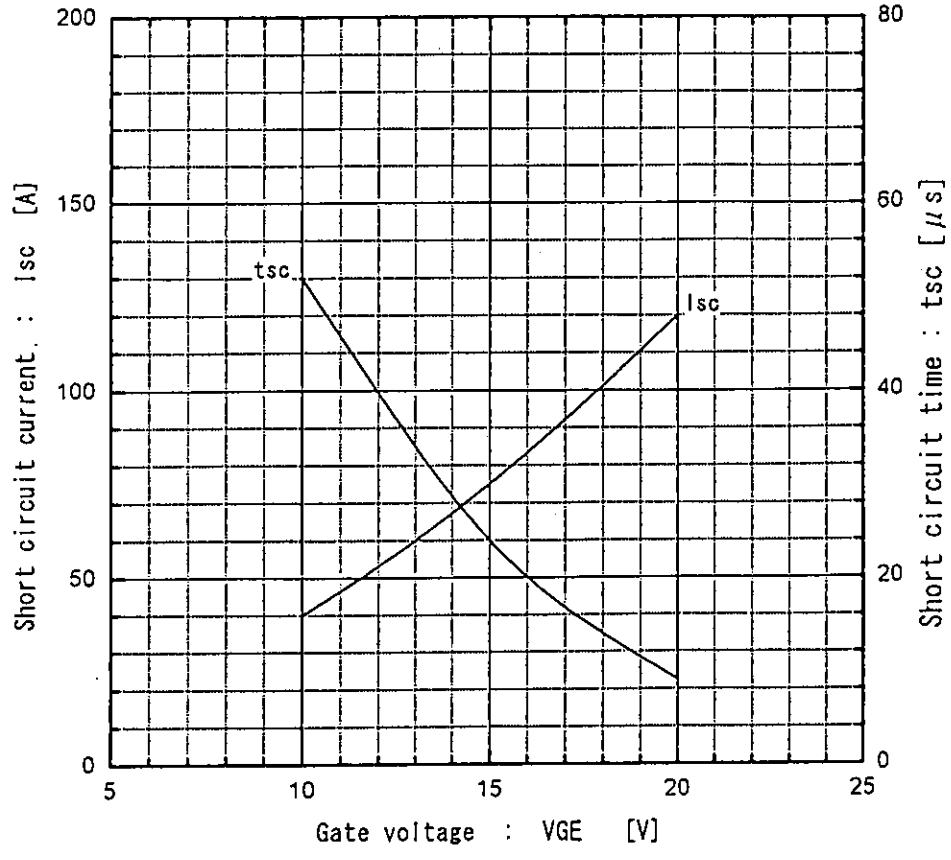
H04-004-03

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

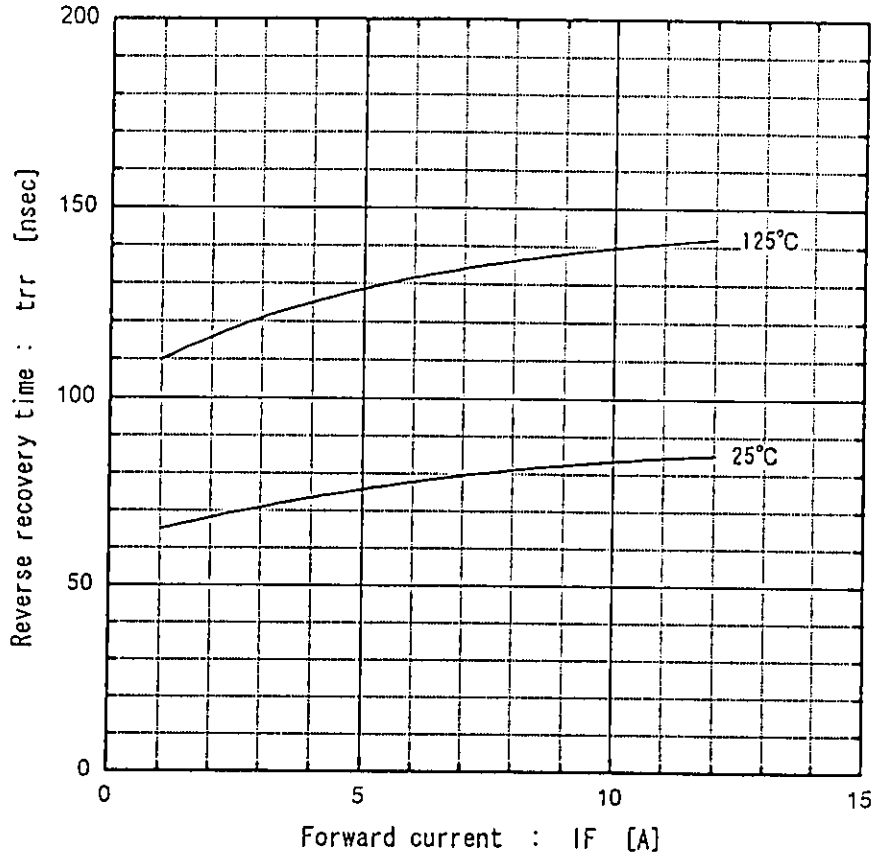


Typical short circuit capability
Vcc=800V, Rg=20Ω, Tj=125°C

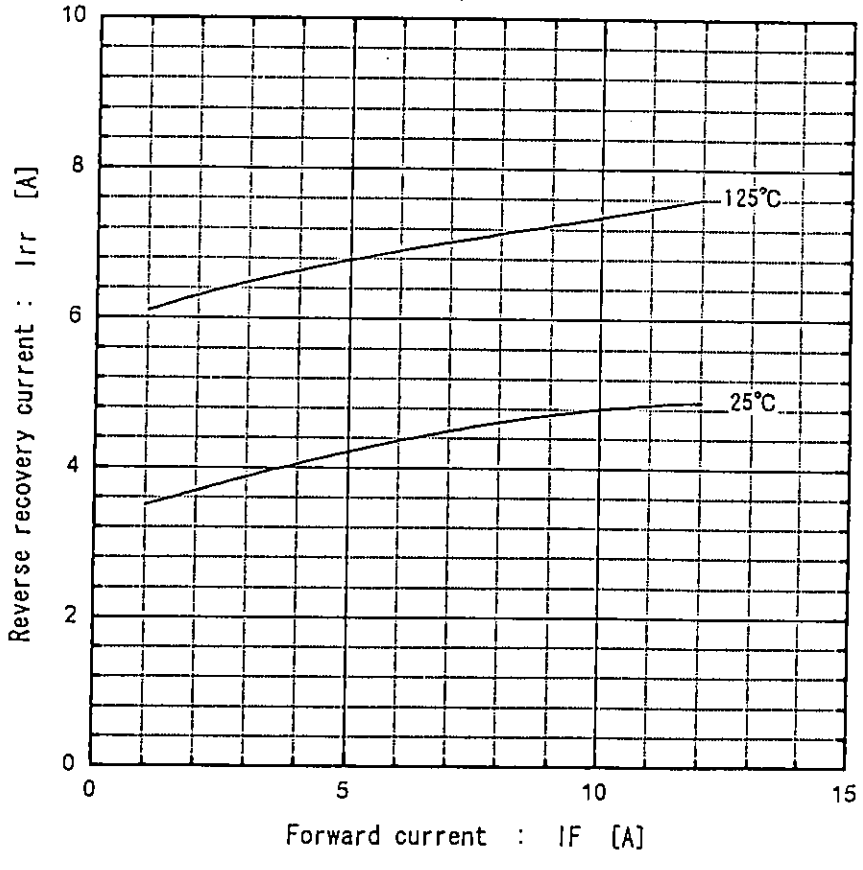


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Reverse recovery time vs. Forward current
VR=200V. -di/dt=100A/μsec

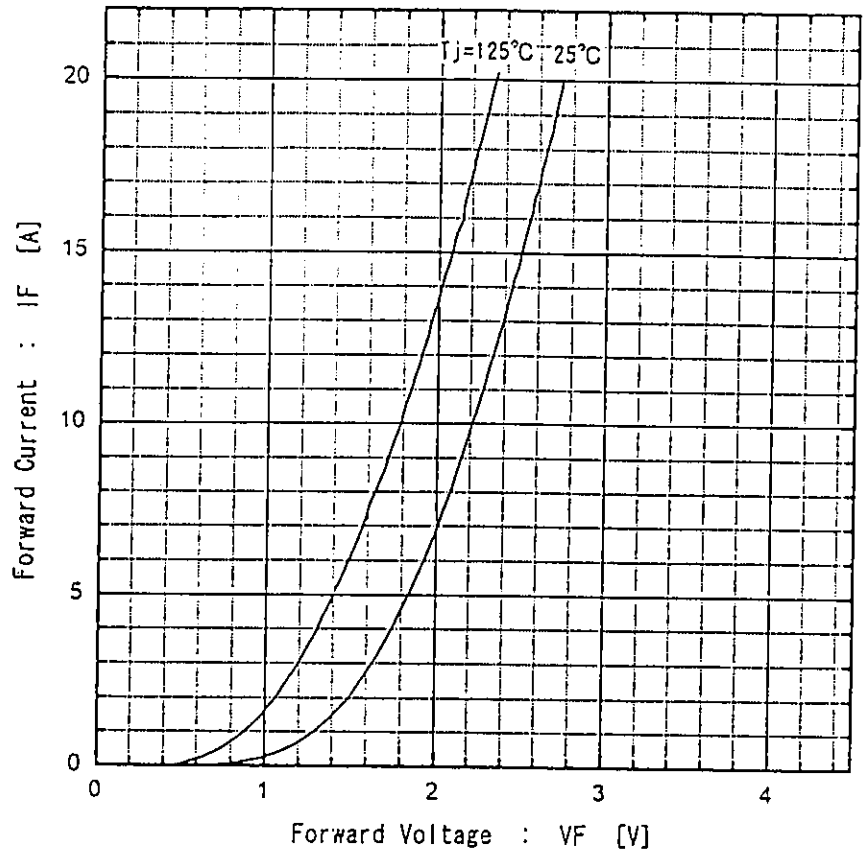


Reverse recovery current vs. Forward current
VR=200V. -di/dt=100A/μsec

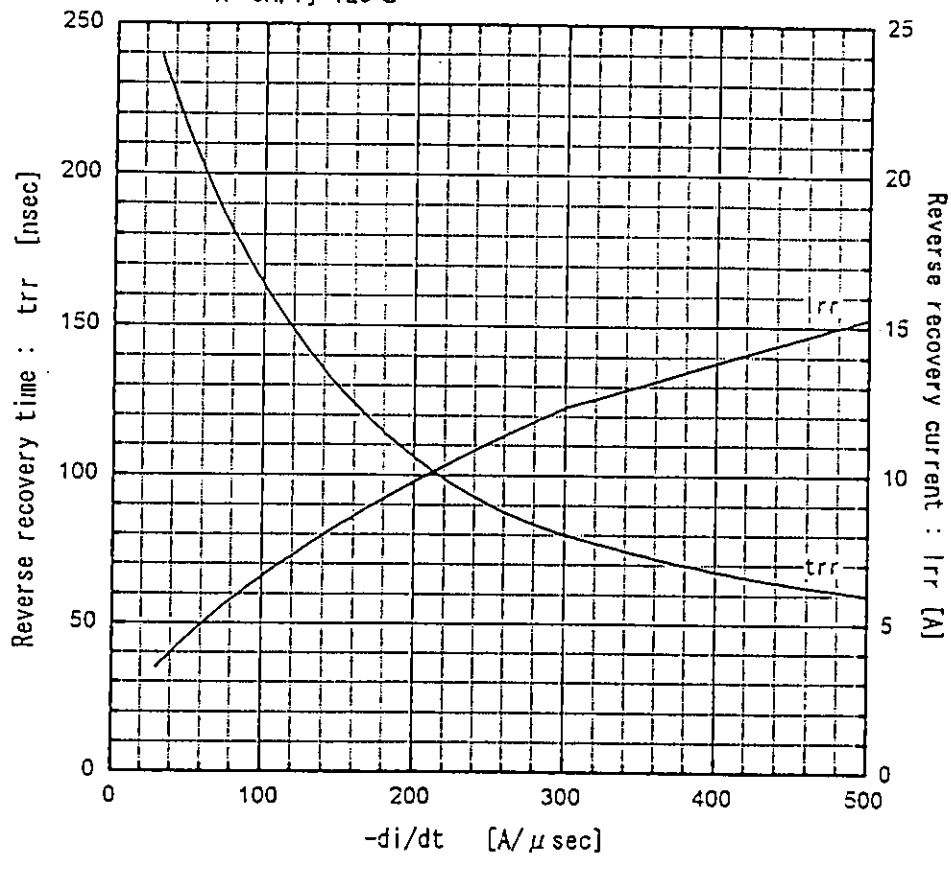


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Forward voltage vs. Forward current

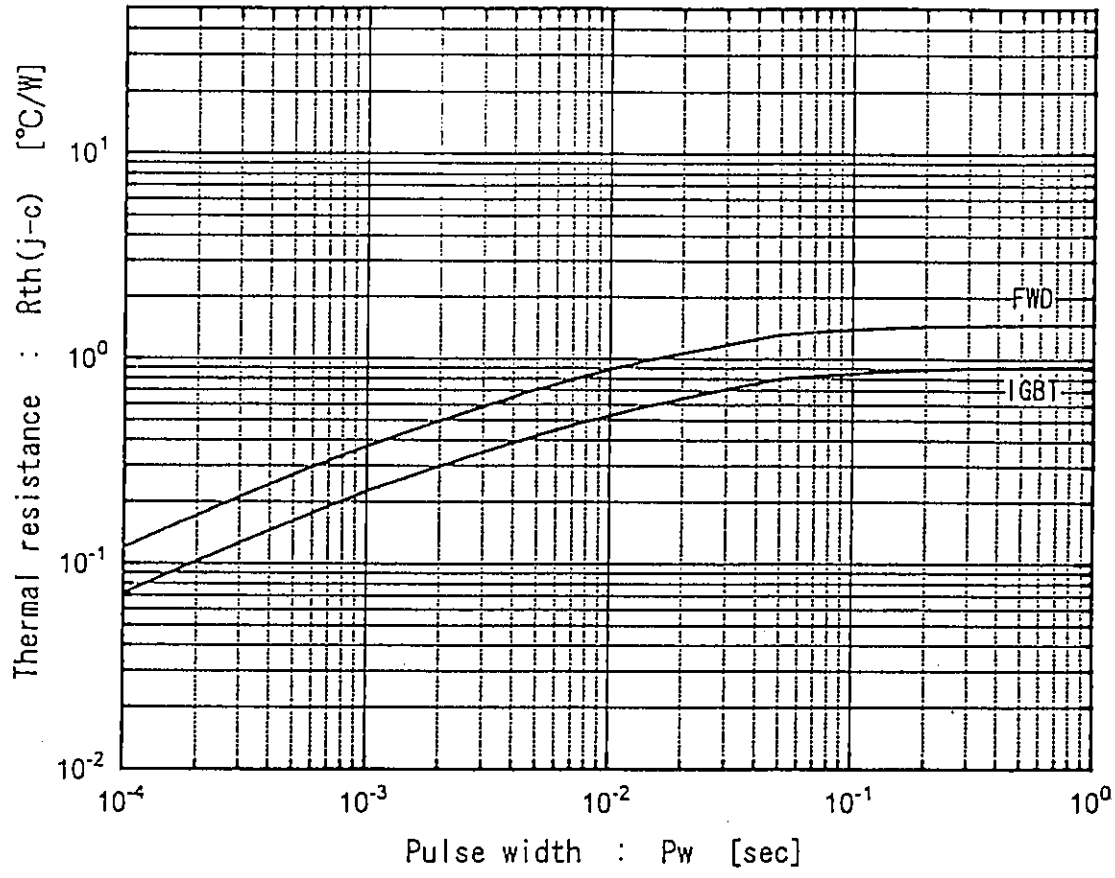


Reverse recovery chracteristics vs. -di/dt
IF=8A, Tj=125°C



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Transient thermal resistance



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