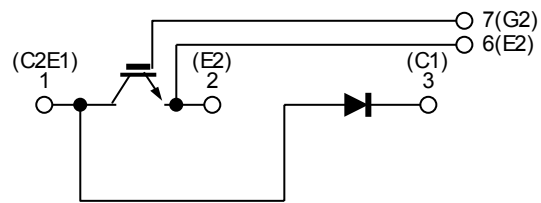
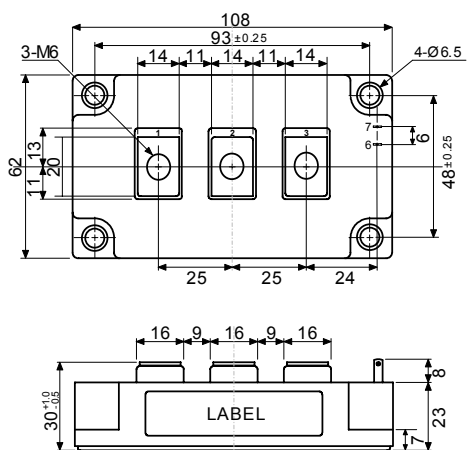


□ 回路図 : CIRCUIT



□ 外形寸法図 : OUTLINE DRAWING



Dimension: [mm]

□ 最大定格 : MAXIMUM RATINGS (T_C=25℃)

I t e m		S y m b o l	R a t e d V a l u e	U n i t
コレクタ・エミッタ間電圧 Collector-Emitter Voltage		V _{CES}	1, 2 0 0	V
ゲート・エミッタ間電圧 Gate-Emitter Voltage		V _{GES}	± 2 0	V
コレクタ電流 Collector Current	D C	I _C	4 0 0	A
	1 m s	I _{CP}	8 0 0	
コレクタ損失 Collector Power Dissipation		P _C	1, 9 0 0	W
接合温度範囲 Junction Temperature Range		T _j	− 4 0 ~ + 1 5 0	℃
保存温度範囲 Storage Temperature Range		T _{stg}	− 4 0 ~ + 1 2 5	℃
絶縁耐圧(Terminal to Base AC, 1 minute) Isolation Voltage		V _{ISO}	2, 5 0 0	V (RMS)
締め付けトルク Mounting Torque	Module Base to Heatsink	F _{tor}	3 (30.6)	N・m (kgf・cm)
	Busbar to Main Terminal			

□ 電気的特性 : ELECTRICAL CHARACTERISTICS (T_C=25℃)

C h a r a c t e r i s t i c		S y m b o l	T e s t C o n d i t i o n	M i n.	T y p.	M a x.	U n i t
コレクタ遮断電流 Collector-Emitter Cut-Off Current		I _{CES}	V _{CE} = 1200V, V _{GE} = 0V	—	—	8.0	mA
ゲート漏れ電流 Gate-Emitter Leakage Current		I _{GES}	V _{GE} = ±20V, V _{CE} = 0V	—	—	1.0	μA
コレクタ・エミッタ間飽和電圧 Collector-Emitter Saturation Voltage		V _{CE(sat)}	I _C = 400A, V _{GE} = 15V	—	1.9	2.4	V
ゲートしきい値電圧 Gate-Emitter Threshold Voltage		V _{GE(th)}	V _{CE} = 5V, I _C = 400mA	4	—	8	V
入力容量 Input Capacitance		C _{ies}	V _{CE} = 10V, V _{GE} = 0V, f= 1MHz	—	25,000	—	pF
スイッチング時間 Switching Time	上昇時間 Rise Time	t _r	V _{CC} = 600V R _g = 1.5Ω V _{GE} = ±15V	—	0.25	0.45	μs
	ターンオン時間 Turn-on Time	t _{on}		—	0.40	0.70	
	下降時間 Fall Time	t _f		—	0.25	0.35	
	ターンオフ時間 Turn-off Time	t _{off}		—	0.80	1.10	

□ フリーホイーリングダイオードの特性 : FREE WHEELING DIODE RATINGS & CHARACTERISTICS (T_C=25℃)

I t e m		S y m b o l	R a t e d V a l u e	U n i t
順電流 Forward Current	D C	I _F	4 0 0	A
	1 m s	I _{FM}	8 0 0	

C h a r a c t e r i s t i c		S y m b o l	T e s t C o n d i t i o n	M i n.	T y p.	M a x.	U n i t
順電圧 Peak Forward Voltage		V _F	I _F = 400A, V _{GE} = 0V	—	1.9	2.4	V
逆回復時間 Reverse Recovery Time		t _{rr}	I _F = 400A, V _{GE} = -10V di/dt= 800A/μs	—	0.2	0.3	μs

□ 熱的特性 : THERMAL CHARACTERISTICS

C h a r a c t e r i s t i c		S y m b o l	T e s t C o n d i t i o n	M i n.	T y p.	M a x.	U n i t
熱抵抗 Thermal Impedance	I G B T	R _{th(j-c)}	Junction to Case	—	—	0.065	℃/W
	Diode			—	—	0.12	

Fig.1- Output Characteristics (Typical)

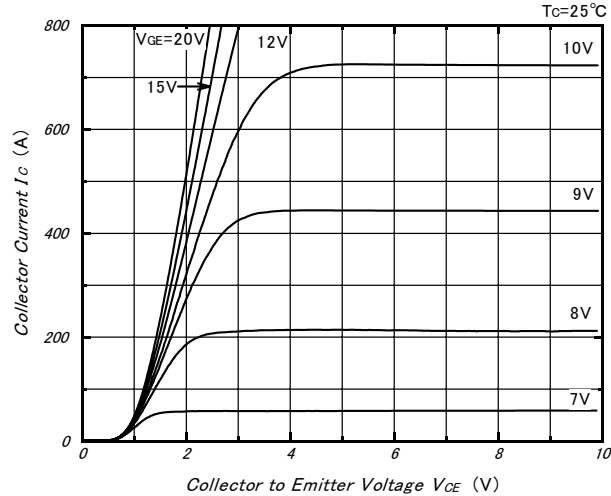


Fig.2- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

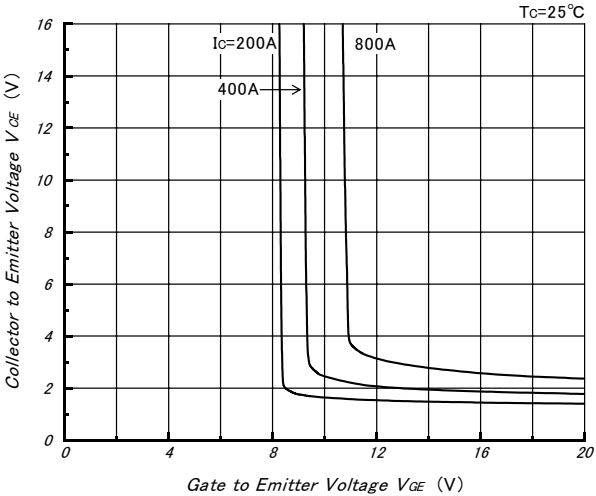


Fig.3- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

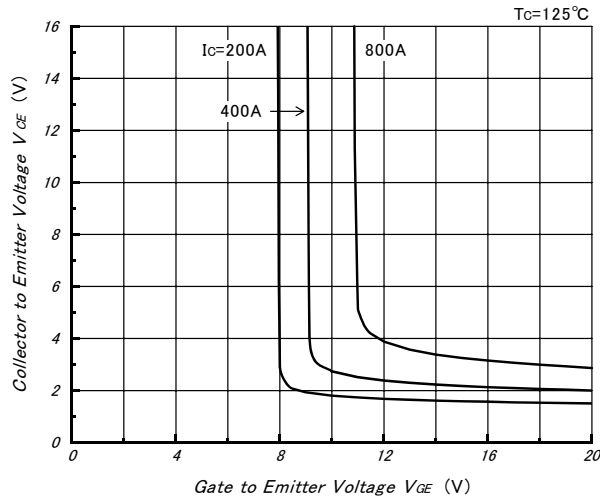


Fig.4- Gate Charge vs. Collector to Emitter Voltage (Typical)

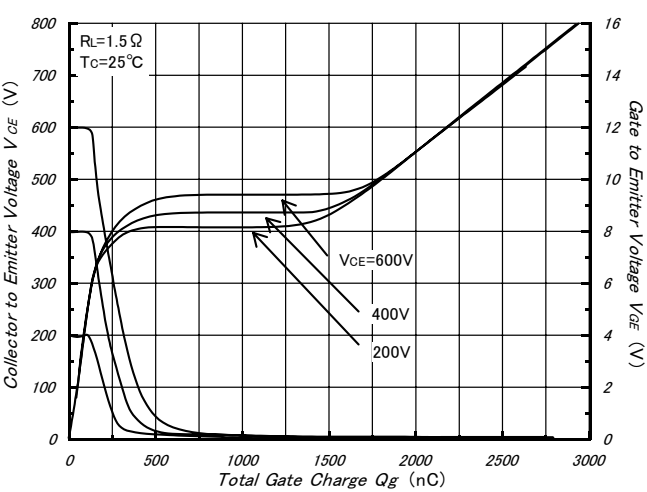


Fig.5- Capacitance vs. Collector to Emitter Voltage (Typical)

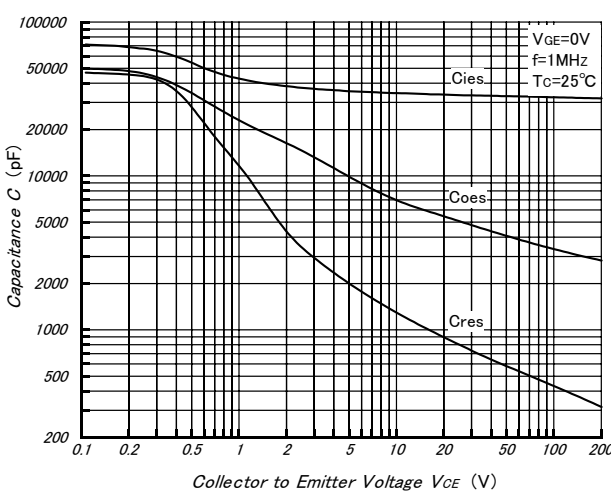


Fig.6- Collector Current vs. Switching Time (Typical)

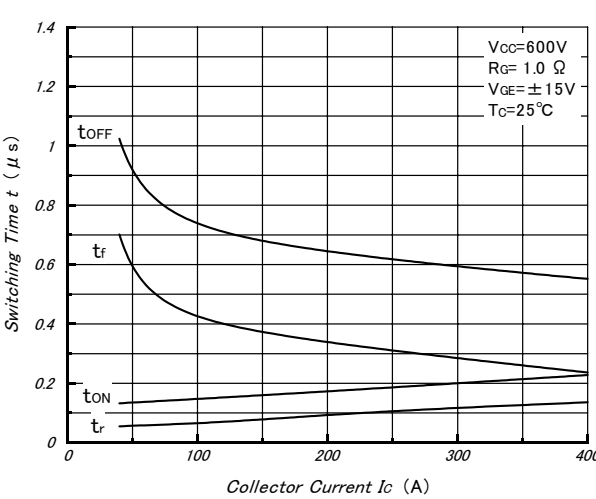


Fig.7- Series Gate Impedance vs. Switching Time (Typical)

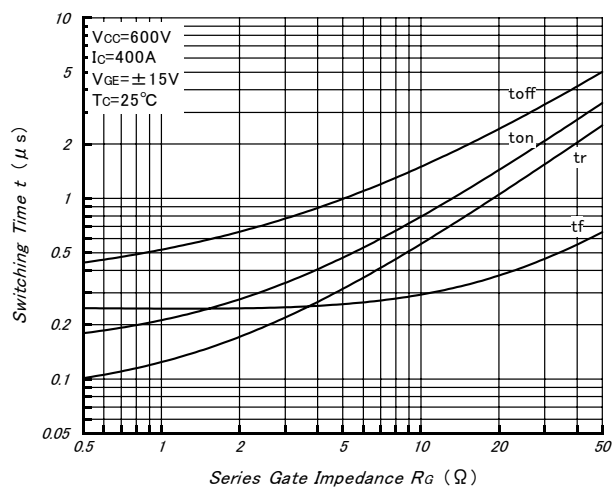


Fig.8- Forward Characteristics of Free Wheeling Diode (Typical)

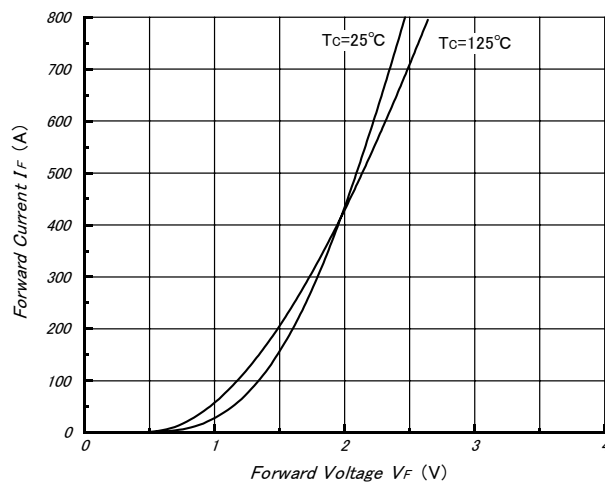


Fig.9- Reverse Recovery Characteristics (Typical)

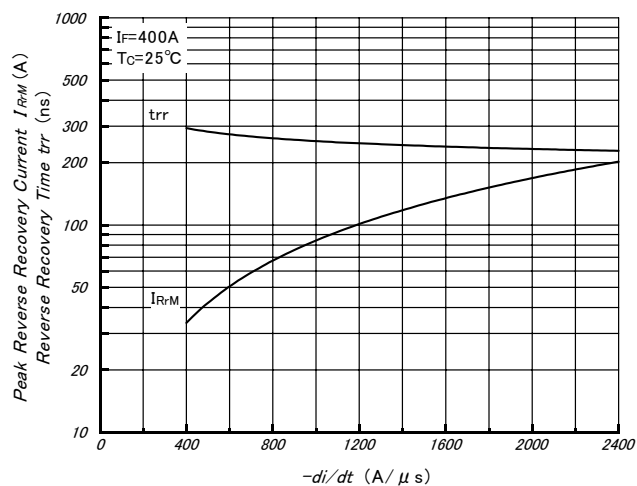


Fig.10- Reverse Bias Safe Operating Area

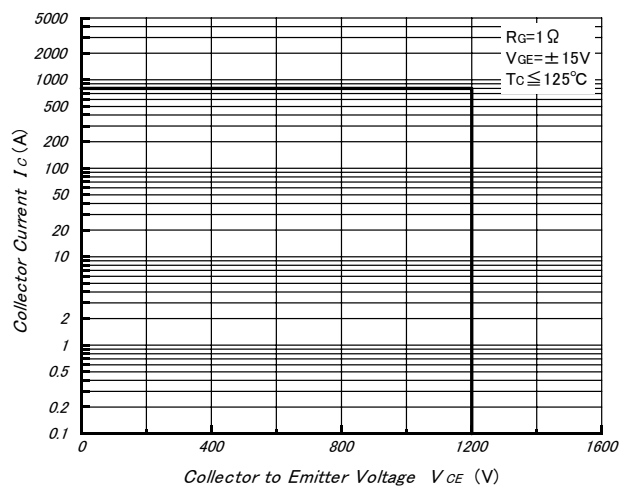


Fig.11- Transient Thermal Impedance

