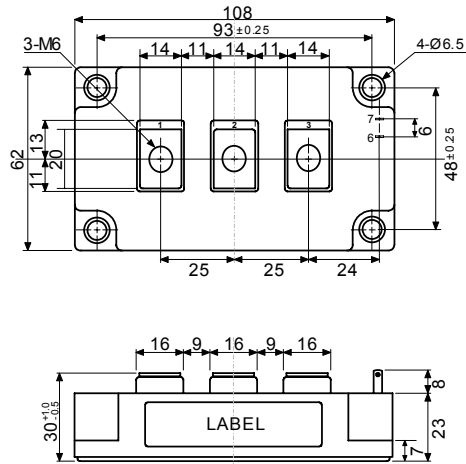
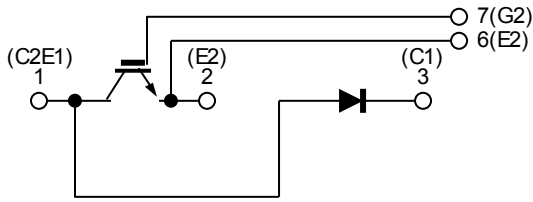


□ 回路図 : *CIRCUIT*

□ 外形寸法図 : *OUTLINE DRAWING*



Dimension: [mm]

□ 最大定格 : *MAXIMUM RATINGS* ($T_c=25^\circ\text{C}$)

Item	Symbol	Rated Value	Unit
コレクタ・エミッタ間電圧 Collector-Emitter Voltage	V_{CES}	1, 200	V
ゲート・エミッタ間電圧 Gate-Emitter Voltage	V_{GES}	± 20	V
コレクタ電流 Collector Current	DC	I_C	A
	1ms	I_{CP}	
コレクタ損失 Collector Power Dissipation	P_C	1, 460	W
接合温度 Junction Temperature Range	T_j	$-40 \sim +150$	$^\circ\text{C}$
保存温度 Storage Temperature Range	T_{stg}	$-40 \sim +125$	$^\circ\text{C}$
絶縁耐圧(Terminal to Base AC, 1 minute) Isolation Voltage	V_{iso}	2, 500	V (RMS)
締め付けトルク Mounting Torque	Module Base to Heatsink	F_{tor}	N·m (kgf·cm)
	Busbar to Main Terminal		

□ 電気的特性 : *ELECTRICAL CHARACTERISTICS* ($T_c=25^\circ\text{C}$)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
コレクタ遮断電流 Collector-Emitter Cut-Off Current	I_{CES}	$V_{CE}=1200V, V_{GE}=0V$	—	—	6.0	mA
ゲート漏れ電流 Gate-Emitter Leakage Current	I_{GES}	$V_{GE}=\pm 20V, V_{CE}=0V$	—	—	1.0	μA
コレクタ・エミッタ間飽和電圧 Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=300A, V_{GE}=15V$	—	1.9	2.4	V
ゲートしきい値電圧 Gate-Emitter Threshold Voltage	$V_{GE(th)}$	$V_{CE}=5V, I_C=300mA$	4.0	—	8.0	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	$V_{CC}=600V$ $R_L=2\Omega$ $R_G=1.3\Omega$ $V_{GE}=\pm 15V$	—	0.25	0.45	μs
	ターンオン時間 Turn-on Time		—	0.40	0.70	
	下降時間 Fall Time		—	0.25	0.35	
	ターンオフ時間 Turn-off Time		—	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* ($T_c=25^\circ\text{C}$)

Item	Symbol	Rated Value	Unit			
順電流 Forward Current	DC	I_F	A			
	1ms	I_{FM}		600		
Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
順電圧 Peak Forward Voltage	V_F	$I_F=300A, V_{GE}=0V$	—	1.9	2.4	V
逆回復時間 Reverse Recovery Time	t_{rr}	$I_F=300A, V_{GE}=-10V$ $di/dt=600A/\mu\text{s}$	—	0.2	0.3	μs

□ 熱的特性 : *THERMAL CHARACTERISTICS*

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
熱抵抗 Thermal Impedance	IGBT	Junction to Case	—	—	0.086	$^\circ\text{C}/\text{W}$
	Diode		—	—	0.16	

Fig.1- Output Characteristics (Typical)

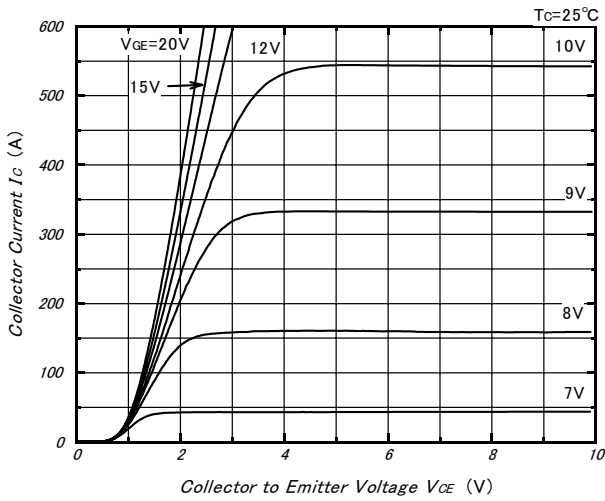


Fig.2- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

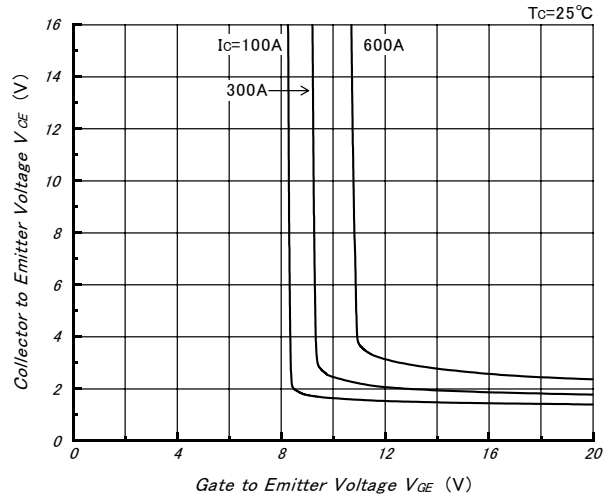


Fig.3- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

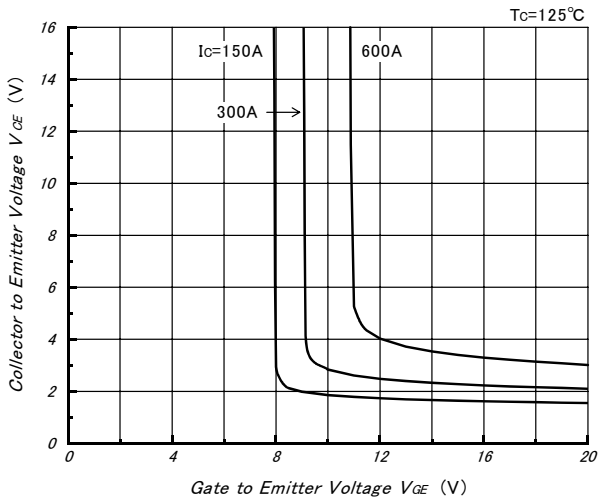


Fig.4- Gate Charge vs. Collector to Emitter Voltage (Typical)

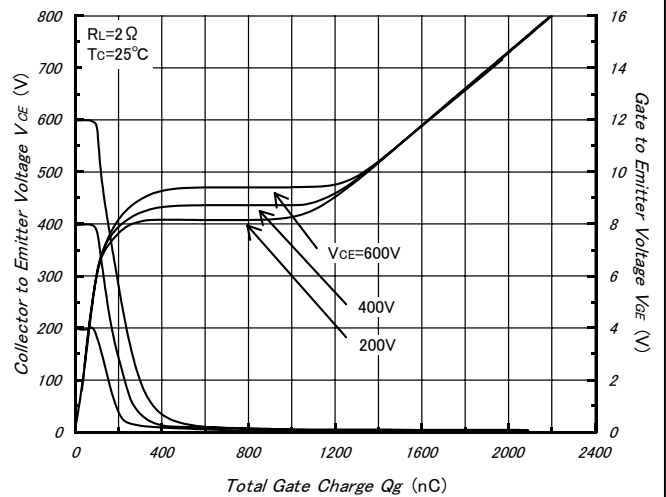


Fig.5- Capacitance vs. Collector to Emitter Voltage (Typical)

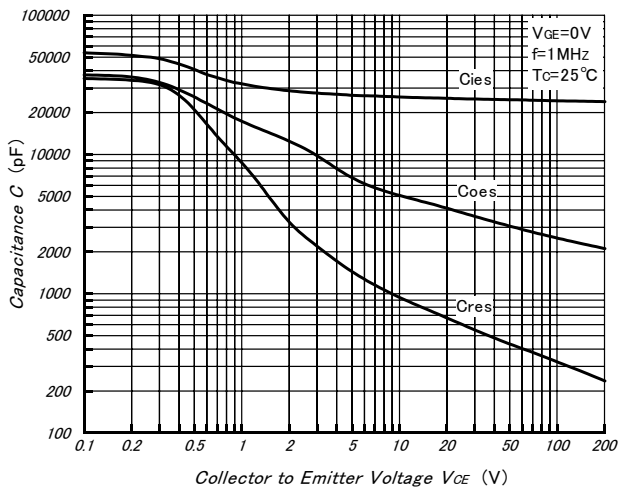


Fig.6- Collector Current vs. Switching Time (Typical)

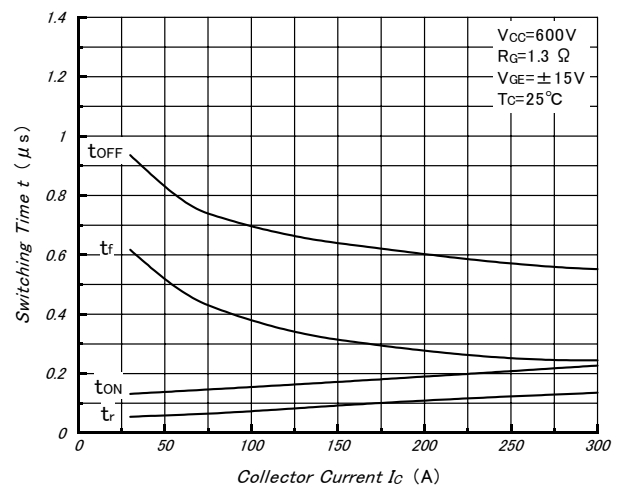


Fig.7- Series Gate Impedance vs. Switching Time (Typical)

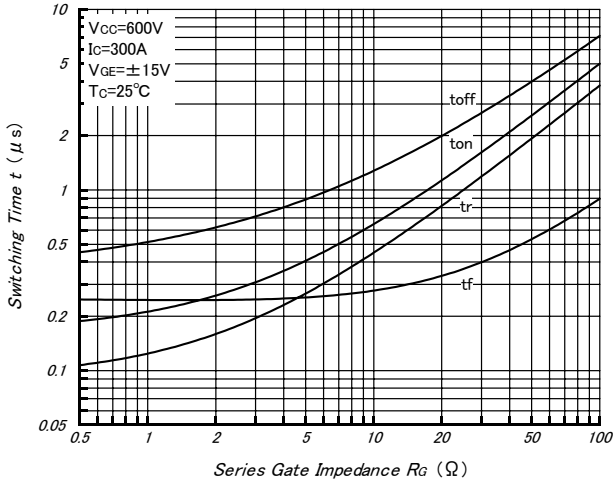


Fig.8- Forward Characteristics of Free Wheeling Diode (Typical)

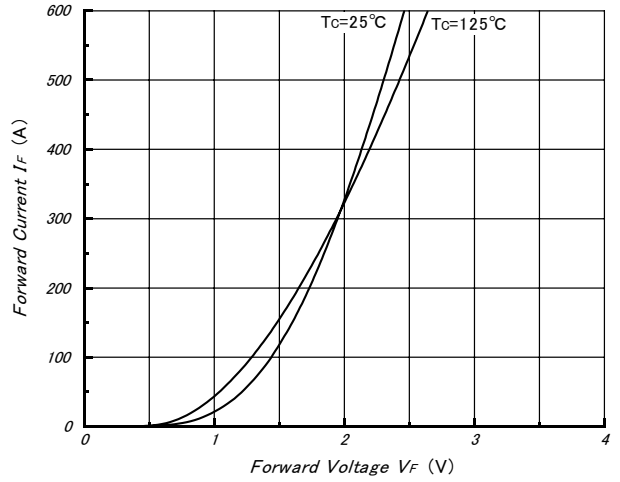


Fig.9- Reverse Recovery Characteristics (Typical)

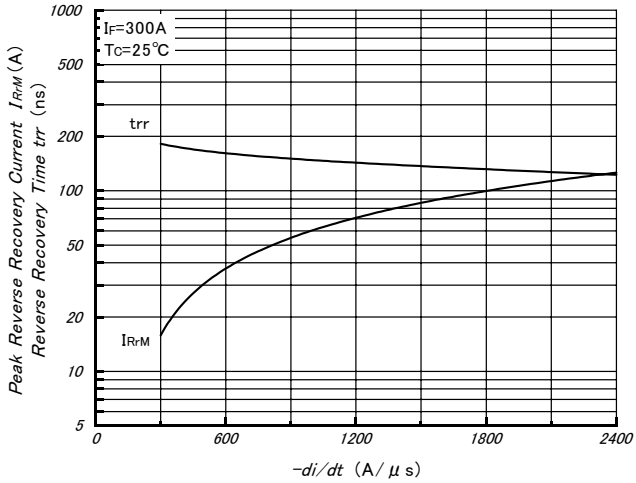


Fig.10- Reverse Bias Safe Operating Area

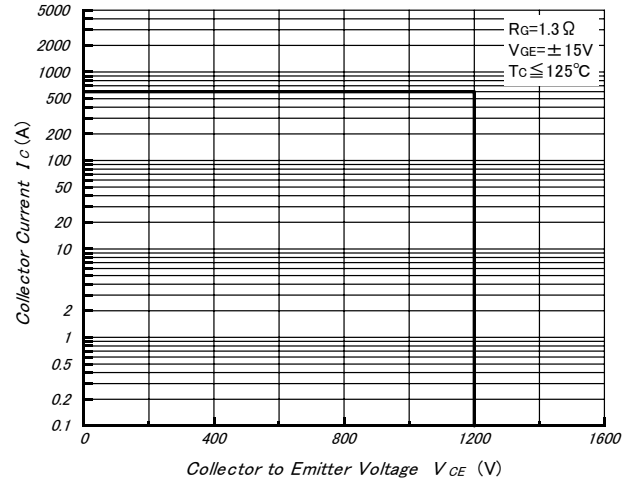


Fig.11- Transient Thermal Impedance

