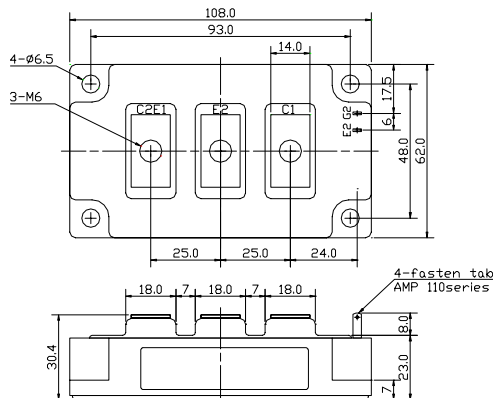
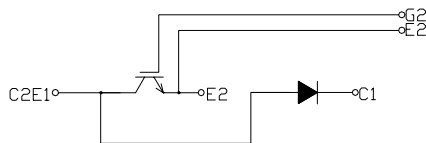


☐ 回路図 : **CIRCUIT**
☐ 外形寸法図 : **OUTLINE DRAWING**


Dimension: [mm]

☐ 最大定格 : **MAXIMUM RATINGS** ($T_c = 25$)

重量: 500 g

Item		Symbol	Rated Value		Unit
コレクタ・エミッタ間電圧 Collector-Emittor Voltage		V _{CES}	6 0 0		V
ゲート・エミッタ間電圧 Gate-Emittor Voltage		V _{GES}	± 2 0		V
コレクタ電流 Collector Current	DC	I _C	3 0 0		A
	1 m s	I _{CP}	6 0 0		
コレクタ損失 Collector Power Dissipation		P _C	1 , 0 4 0		W
接合温度 Junction Temperature Range		T _j	- 4 0 ~ + 1 5 0		
保存温度 Storage Temperature Range		T _{stg}	- 4 0 ~ + 1 2 5		
絶縁耐圧(Terminal to Base AC,1minute) 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}	PCHMB300A6 2 (2 0 . 4)	PCHMB300A6C 3 (3 0 . 6)	N・m (kgf・cm)
	Busbar to Main Terminal				

☐ 電気的特性 : **ELECTRICAL CHARACTERISTICS** ($T_c = 25$)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
コレクタ遮断電流 Collector-Emittor Cut-Off Current	I_{CES}	$V_{CE} = 600V, V_{GE} = 0V$	-	-	3.0	mA
ゲート漏れ電流 Gate-Emittor 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-Emittor Saturation Voltage	$V_{CE(sat)}$	$I_C = 300A, V_{GE} = 15V$	-	2.1	2.6	V
ゲートしきい値電圧 Gate-Emittor Threshold Voltage	$V_{GE(th)}$	$V_{CE} = 5V, I_C = 300mA$	4.0	-	8.0	V
入力容量 Input Capacitance	C_{ies}	$V_{CES} = 10V, V_{GE} = 0V, f = 1MHz$	-	30,000	-	pF
スイッチング時間 Switching Time	上昇時間 Rise Time	$V_{CC} = 300V$ $R_L = 1\Omega$ $R_G = 2.0\Omega$ $V_{GE} = \pm 15V$	-	0.20	0.40	μs
	ターンオン時間 Turn-on Time		-	0.40	0.75	
	下降時間 Fall Time		-	0.20	0.35	
	ターンオフ時間 Turn-off Time		-	0.60	0.80	

☐ フリーホイールダイオードの特性 : **FREE WHEELING DIODE RATINGS & CHARACTERISTICS** ($T_c = 25$)

Item		Symbol	Rated Value	Unit
順電流 Forward Current	DC	I_F	300	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}	$I_F = 300A, V_{GE} = -10V$ $di/dt = 300A/\mu s$	-	0.15	0.25	μs

☐ 熱的特性 : **THERMAL CHARACTERISTICS**

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
熱抵抗 Thermal Impedance	IGBT	Junction to Case	-	-	0.12	/W
	Diode		-	-	0.24	

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Fig.1- Output Characteristics (Typical)

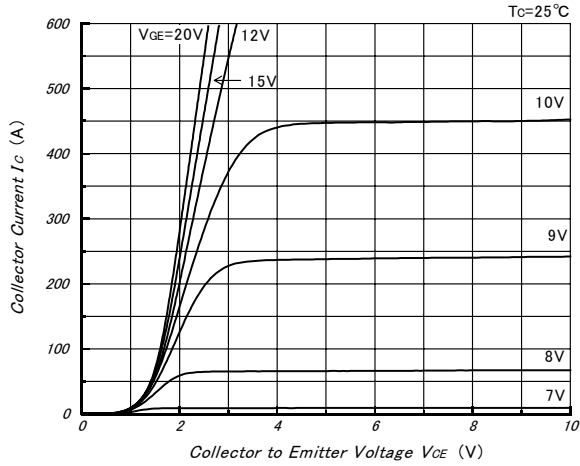


Fig.2- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

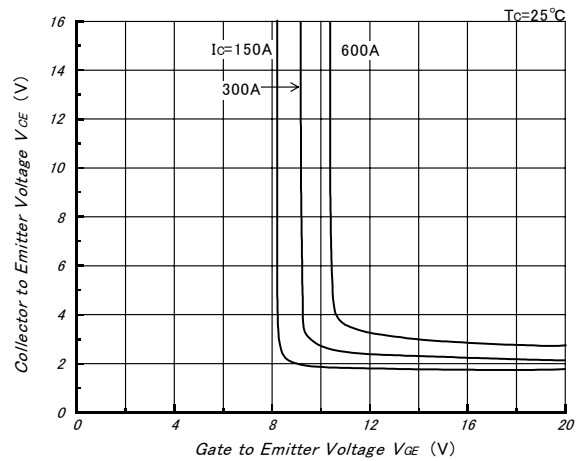


Fig.3- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

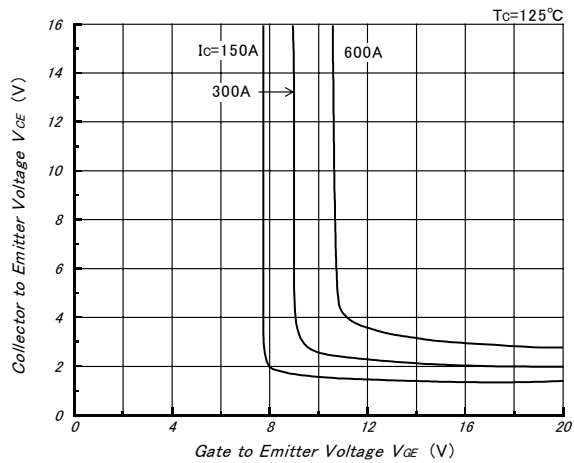


Fig.4- Gate Charge vs. Collector to Emitter Voltage (Typical)

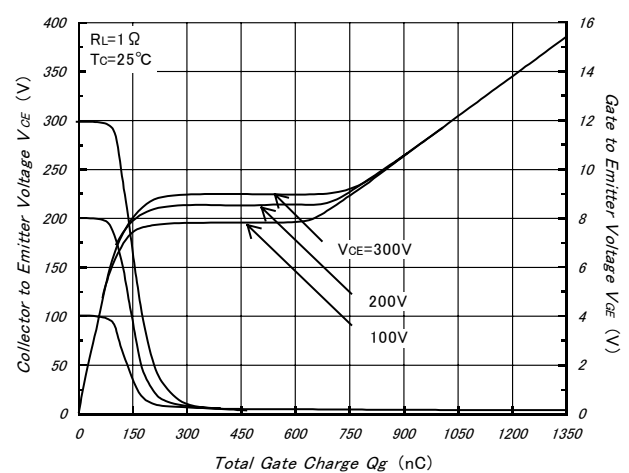


Fig.5- Capacitance vs. Collector to Emitter Voltage (Typical)

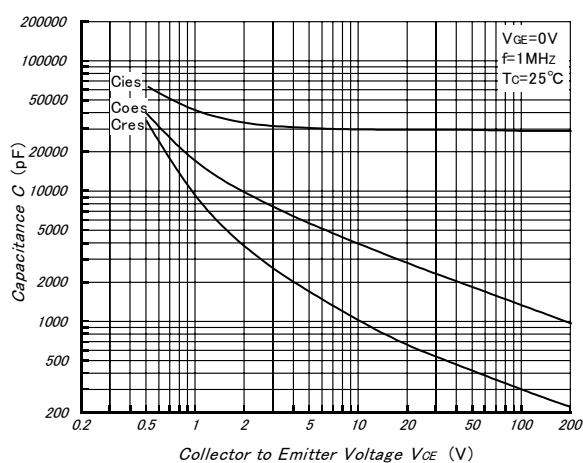
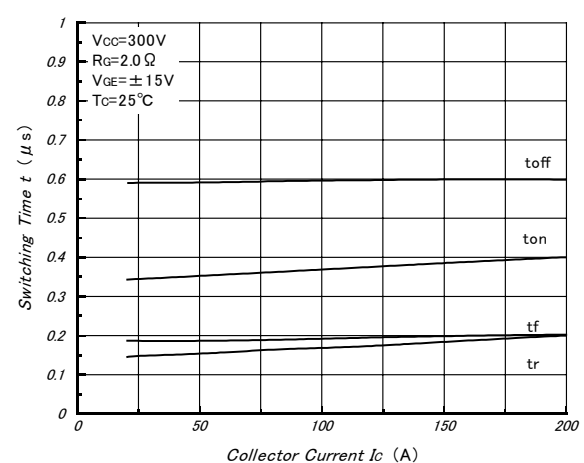


Fig.6- Collector Current vs. Switching Time (Typical)



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

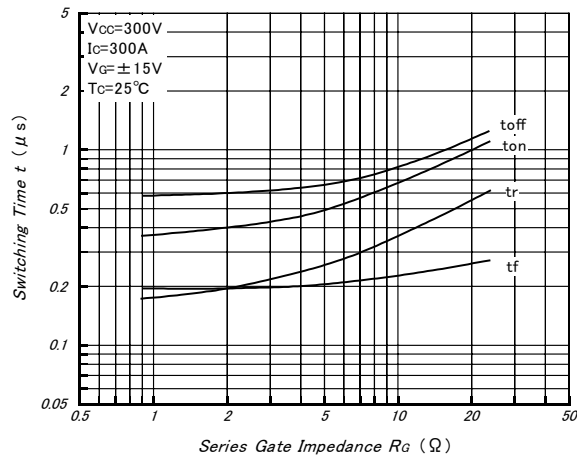


Fig.8- Forward Characteristics of Free Wheeling Diode (Typical)

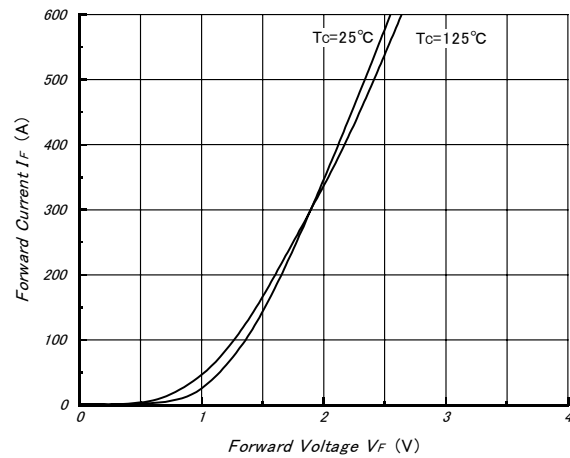


Fig.9- Reverse Recovery Characteristics (Typical)

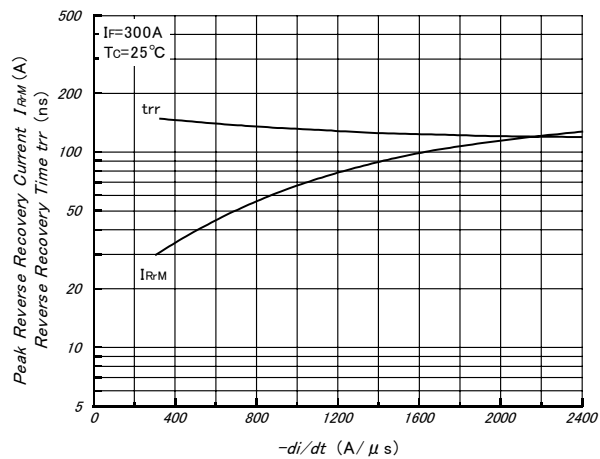


Fig.10- Reverse Bias Safe Operating Area (Typical)

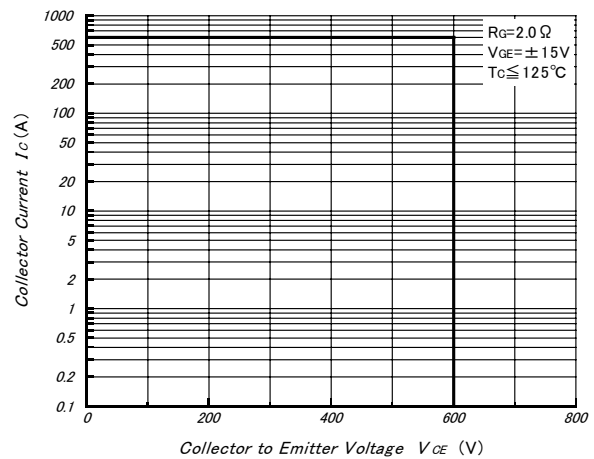


Fig.11- Transient Thermal Impedance

