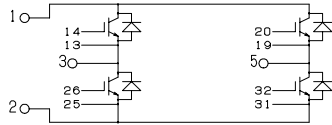
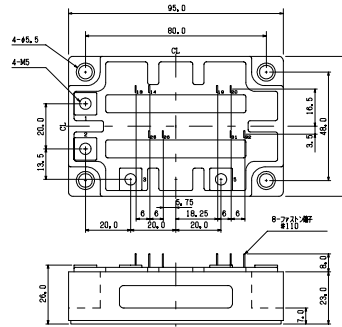


回路図 : CIRCUIT

外形寸法図 : OUTLINE DRAWING

 8-faston tab
110

Dimension: [mm]

最大定格 : MAXIMUM RATINGS ($T_c = 25$)

重量 : 450 g

Item	Symbol	Rated Value	Unit
コレクタ・エミッタ間電圧 Collector-Emitter Voltage	V_{CES}	600	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	100
	1ms	I_{CP}	200
コレクタ損失 Collector Power Dissipation	P_C	400	W
接合温度 Junction Temperature Range	T_j	-40 ~ +150	
保存温度 Storage Temperature Range	T_{stg}	-40 ~ +125	
絶縁耐圧 (Terminal to Base AC, 1 minute) Isolation Voltage	V_{ISO}	2500	$V_{(RMS)}$
締め付けトルク Mounting Torque	Module Base to Heatsink	2	N·m
	Busbear to Main Terminal	(2.0 . 4)	(kgf·cm)

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-Emitter Cut-Off Current	I_{CES}	$V_{CE} = 600V, V_{GE} = 0V$	-	-	1.0	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	$V_{CE(sat)}$	$I_C = 100A, V_{GE} = 15V$	-	2.1	2.6	V
ゲートしきい値電圧 Gate-Emitter Threshold Voltage	$V_{GE(th)}$	$V_{CE} = 5V, I_C = 100mA$	4.0	-	8.0	V
入力容量 Input Capacitance	C_{ies}	$V_{CE} = 10V, V_{GE} = 0V, f = 1MHz$	-	10000	-	pF
スイッチング時間 Switching Time	上昇時間 Rise Time	$V_{CC} = 300V, R_L = 3, R_G = 7.5, V_{GE} = \pm 15V$	-	0.15	0.3	μs
	ターンオン時間 Turn-on Time		-	0.25	0.4	
	下降時間 Fall Time		-	0.2	0.35	
	ターンオフ時間 Turn-off Time		-	0.45	0.7	

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	100
	1ms	I_{FM}	200

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
順電圧 Peak Forward Voltage	V_F	$I_F = 100A, V_{GE} = 0V$	-	1.9	2.4	V
逆回復時間 Reverse Recovery Time	t_{rr}	$I_F = 100A, V_{GE} = -10V, di/dt = 100A/\mu s$	-	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	$R_{th(j-c)}$	Junction to Case	-	-	0.31	/W
	Diode			-	-	0.65	

P B M B 1 0 0 A 6

Fig.1- Output Characteristics (Typical)

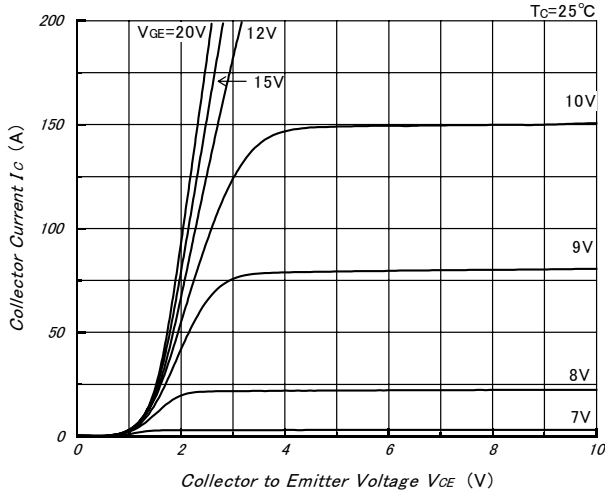


Fig.2- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

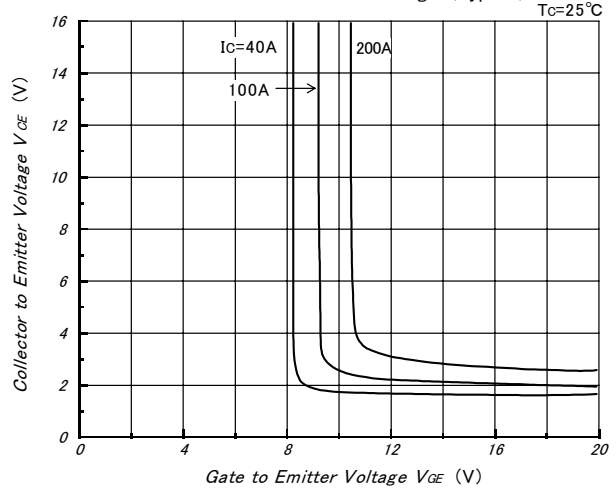


Fig.3- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

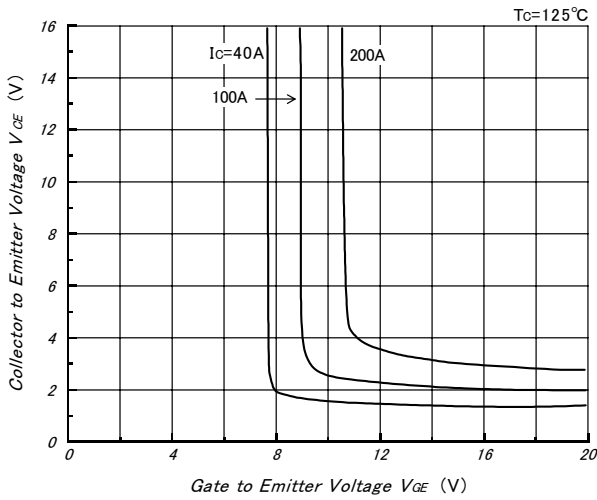


Fig.4- Gate Charge vs. Collector to Emitter Voltage (Typical)

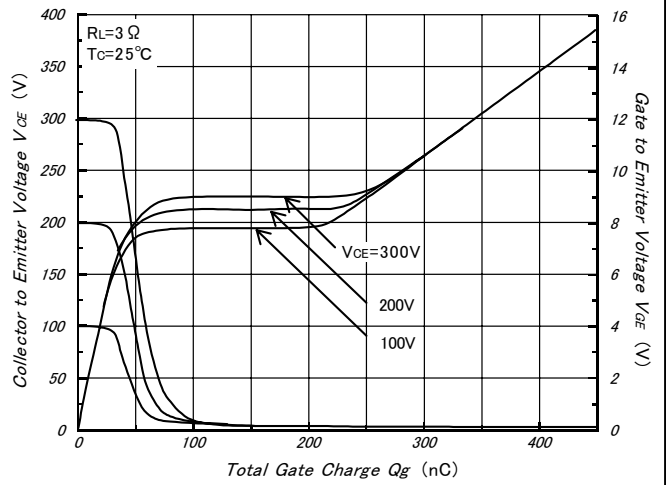


Fig.5- Capacitance vs. Collector to Emitter Voltage (Typical)

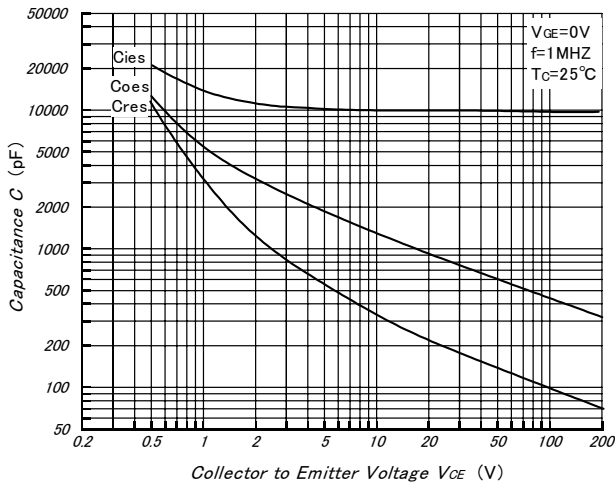
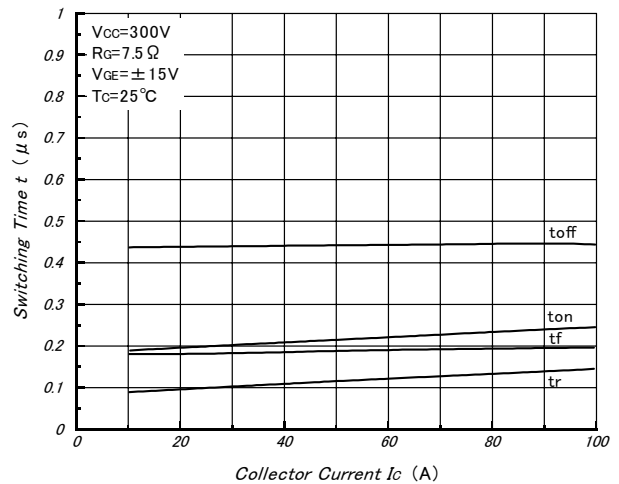


Fig.6- Collector Current vs. Switching Time (Typical)



P B M B 1 0 0 A 6

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

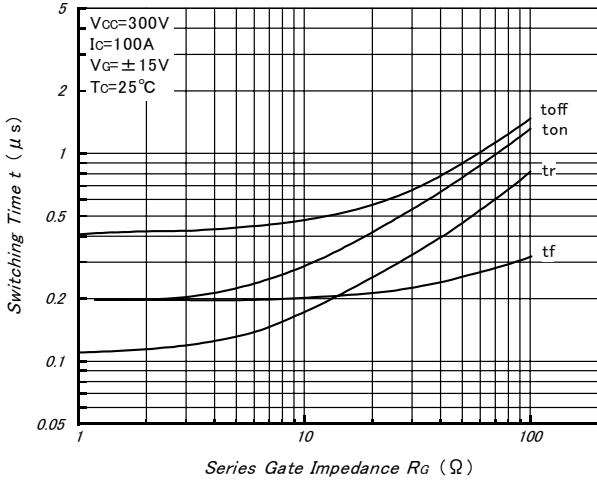


Fig.8- Forward Characteristics of Free Wheeling Diode (Typical)

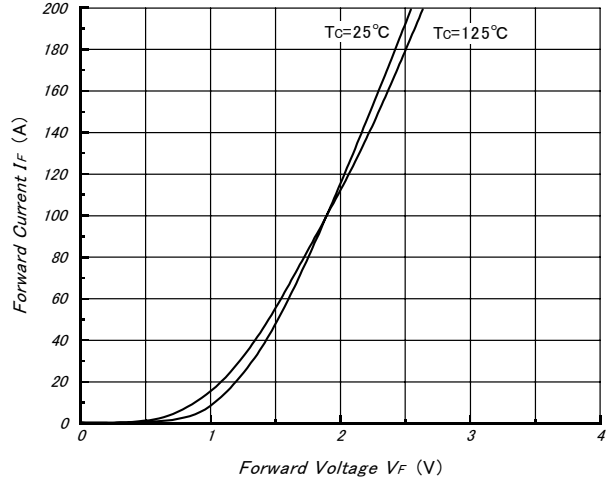


Fig.9- Reverse Recovery Characteristics (Typical)

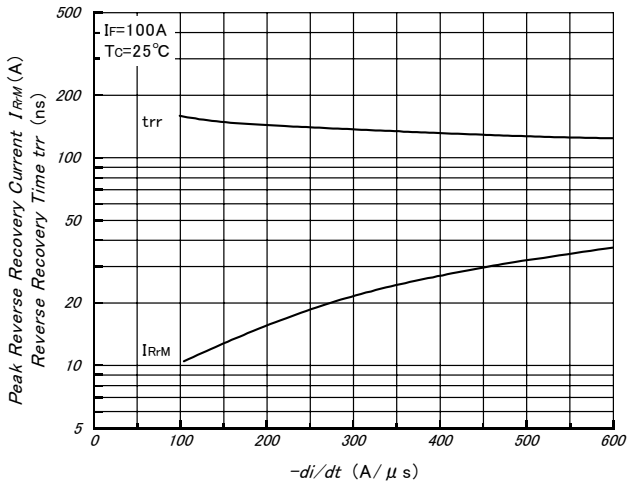


Fig.10- Reverse Bias Safe Operating Area (Typical)

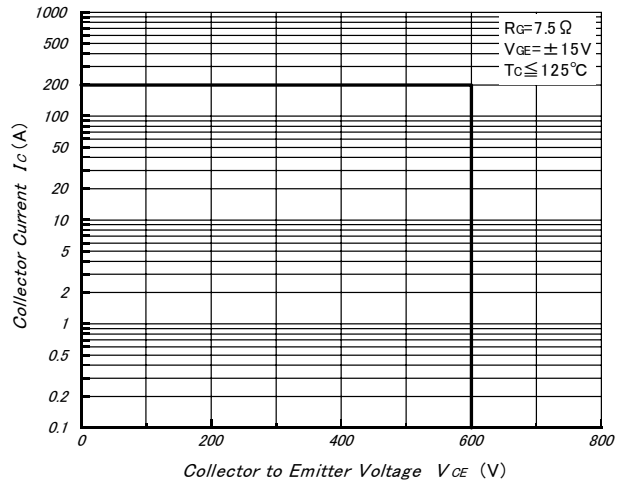


Fig.11- Transient Thermal Impedance

