

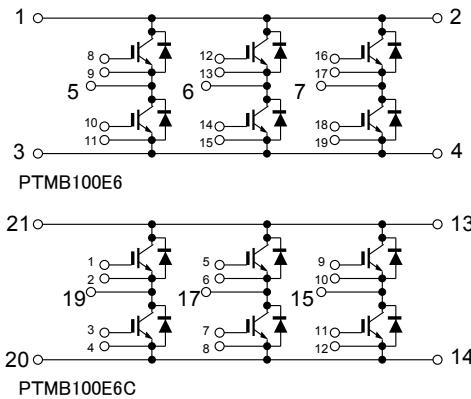
IGBT Module-Six Pack

100A, 600V

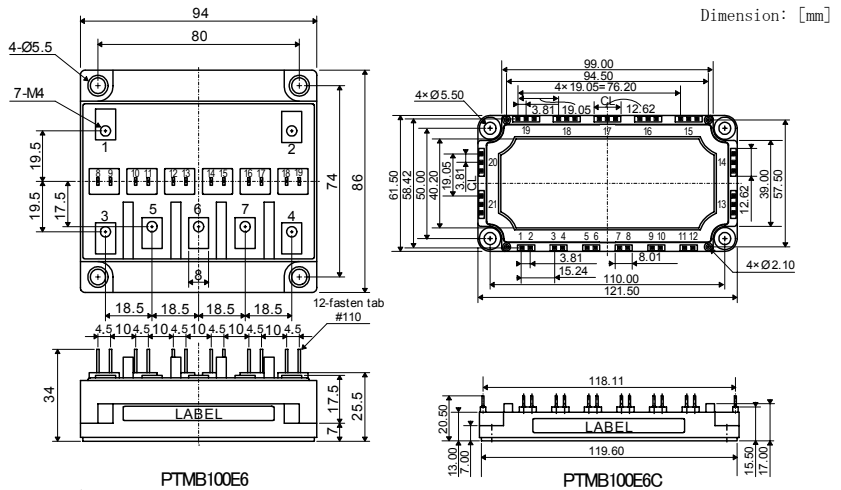
PTMB100E6

PTMB100E6C

□ 回路図 : CIRCUIT



□ 外形寸法図 : OUTLINE DRAWING



□ 最大定格 : MAXIMUM RATINGS (T<sub>c</sub>=25°C)

Item	Symbol	Rated Value	Unit
コレクタ・エミッタ間電圧 Collector-Emitter Voltage	V <sub>CEs</sub>	600	V
ゲート・エミッタ間電圧 Gate-Emitter Voltage	V <sub>GEs</sub>	±20	V
コレクタ電流 Collector Current	I <sub>c</sub>	DC	100
		1ms	200
コレクタ損失 Collector Power Dissipation	P <sub>c</sub>	400	W
接合温度 Junction Temperature Range	T <sub>j</sub>	-40~+150	°C
保存温度 Storage Temperature Range	T <sub>stg</sub>	-40~+125	°C
絶縁耐圧(Terminal to Base AC, 1minute) Isolation Voltage	V <sub>iso</sub>	2,500	V <sub>(RMS)</sub>
締め付けトルク Mounting Torque	F <sub>tor</sub>	PTMB100E6 Module Base to Heatsink	2 (20.4)
		PTMB100E6C Busbar to Main Terminal	1.4 (14.3)

□ 電気的特性 : ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C)

Characteristic	Symbol	Test Condition	Min.	Tvp.	Max.	Unit
コレクタ遮断電流 Collector-Emitter Cut-Off Current	I <sub>CEs</sub>	V <sub>CE</sub> = 600V, V <sub>GE</sub> = 0V	-	-	1.0	mA
ゲート漏れ電流 Gate-Emitter Leakage Current	I <sub>GEs</sub>	V <sub>GE</sub> = ±20V, V <sub>CE</sub> = 0V	-	-	1.0	μA
コレクタ・エミッタ間飽和電圧 Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> = 100A, V <sub>GE</sub> = 15V	-	2.1	2.6	V
ゲートしきい値電圧 Gate-Emitter Threshold Voltage	V <sub>GE(th)</sub>	V <sub>CE</sub> = 5V, I <sub>c</sub> = 100mA	4.0	-	8.0	V
入力容量 Input Capacitance	C <sub>ies</sub>	V <sub>CE</sub> = 10V, V <sub>GE</sub> = 0V, f = 1MHz	-	5,000	-	pF
スイッチング時間 Switching Time	上昇時間 Rise Time	V <sub>CC</sub> = 300V R <sub>i</sub> = 3.0Ω R <sub>G</sub> = 8.2Ω V <sub>GE</sub> = ±15V	-	0.15	0.30	μs
	ターンオン時間 Turn-on Time		-	0.25	0.40	
	下降時間 Fall Time		-	0.10	0.35	
	ターンオフ時間 Turn-off Time		-	0.35	0.70	

□ フリーホイールダイオードの特性 : FREE WHEELING DIODE RATINGS & CHARACTERISTICS (T<sub>c</sub>=25°C)

Item	Symbol	Rated Value	Unit
順電流 Forward Current	I <sub>F</sub>	DC	100
		1ms	200

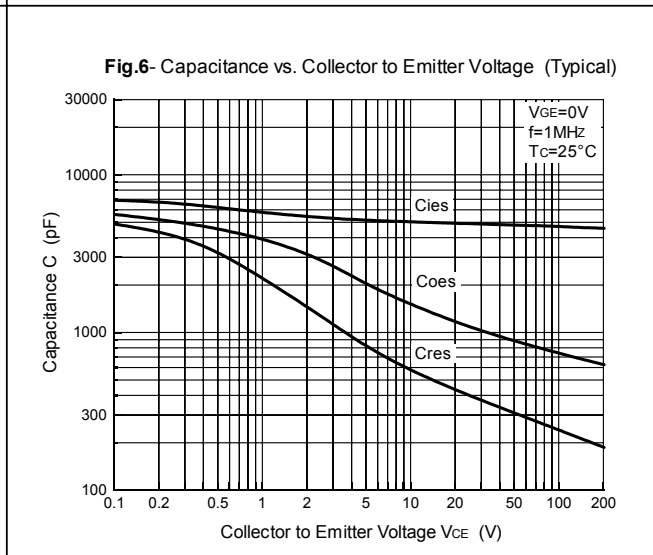
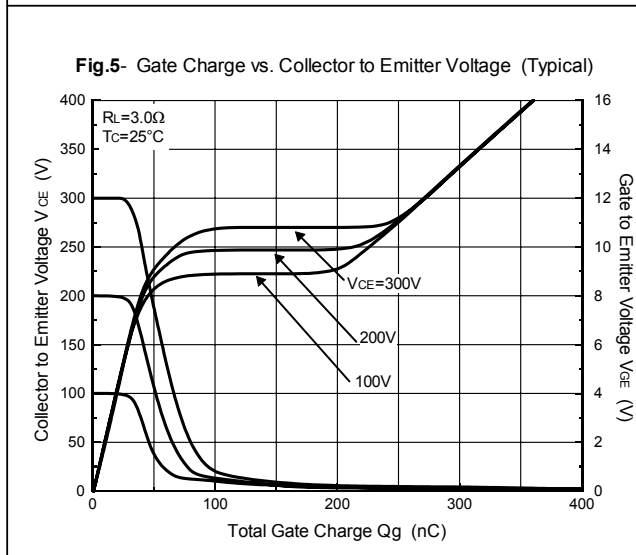
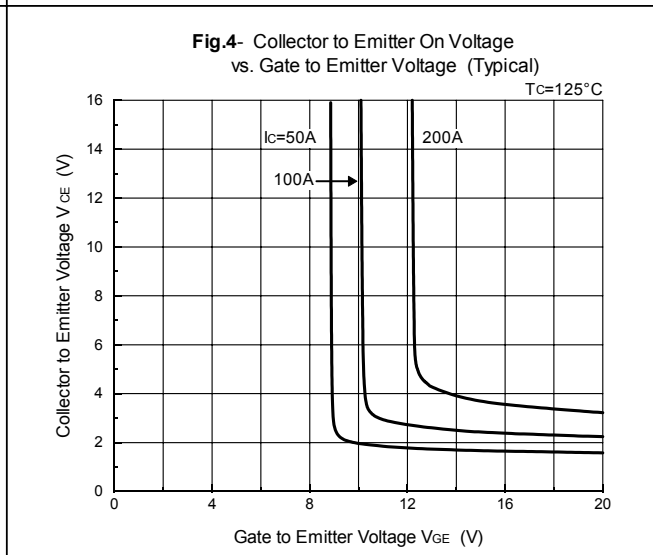
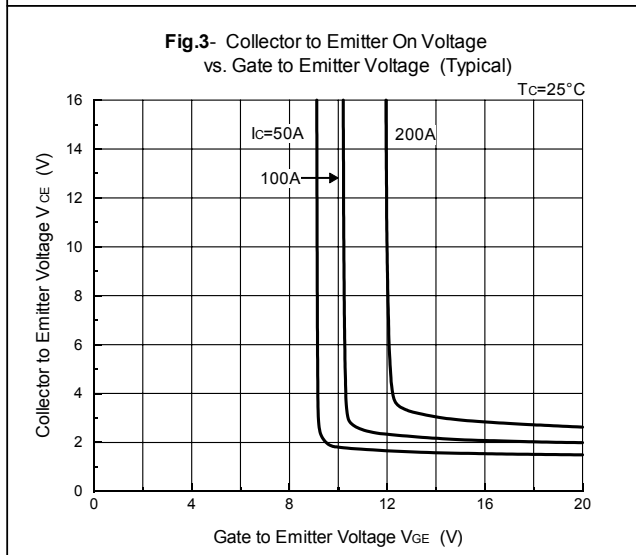
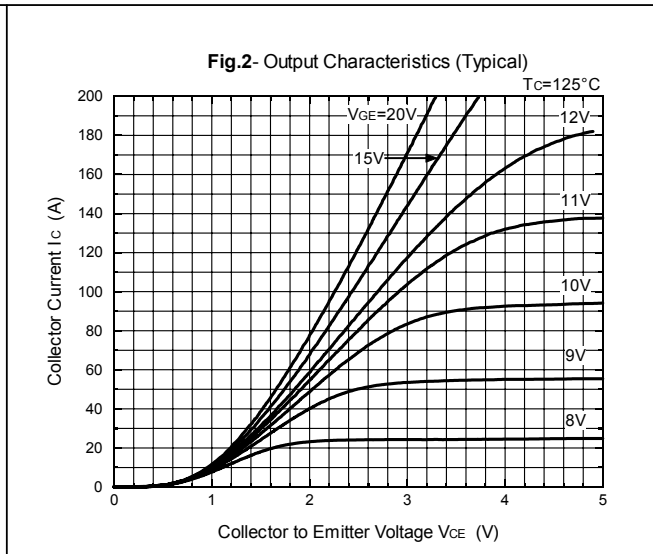
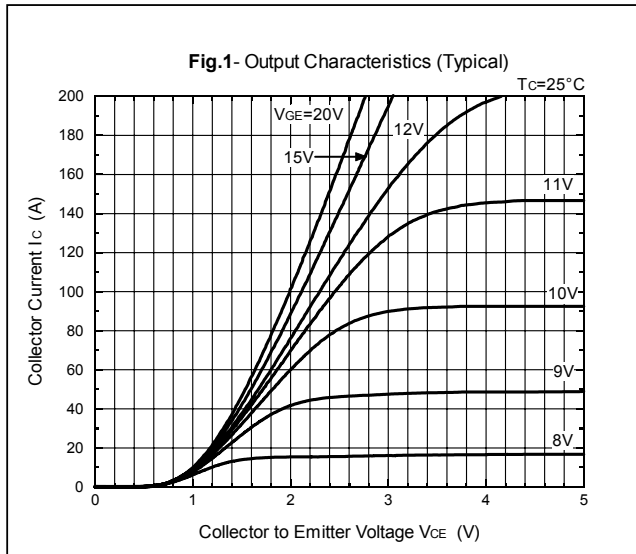
Characteristic	Symbol	Test Condition	Min.	Tvp.	Max.	Unit
順電圧 Peak Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 100A, V <sub>GE</sub> = 0V	-	1.9	2.4	V
逆回復時間 Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> = 100A, V <sub>GE</sub> = -10V di/dt = 200A/μs	-	0.15	0.25	μs

□ 熱的特性 : THERMAL CHARACTERISTICS

Characteristic	Symbol	Test Condition	Min.	Tvp.	Max.	Unit
熱抵抗 Thermal Impedance	R <sub>th(j-c)</sub>	IGBT Junction to Case	-	-	0.31	°C/W
		Diode (T <sub>c</sub> 測定点チップ直下)	-	-	0.65	

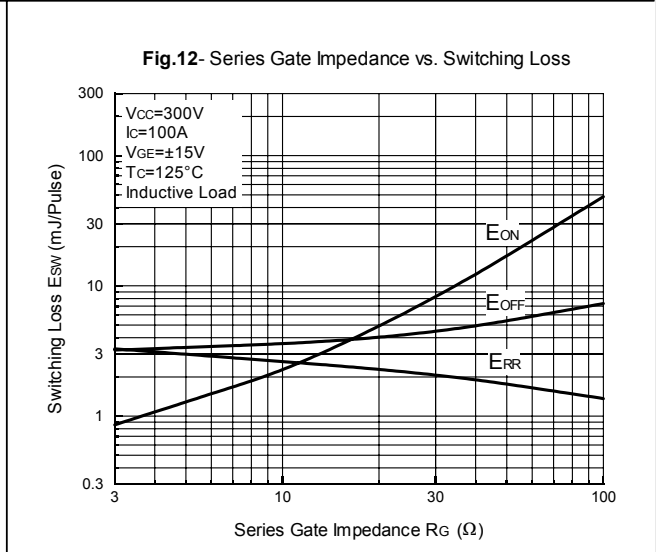
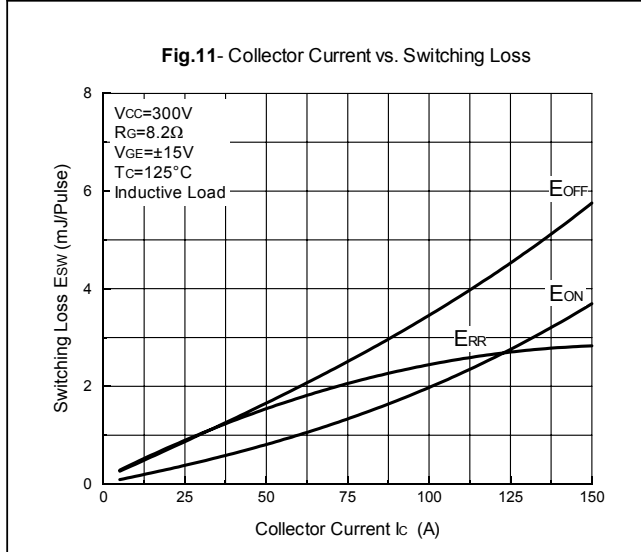
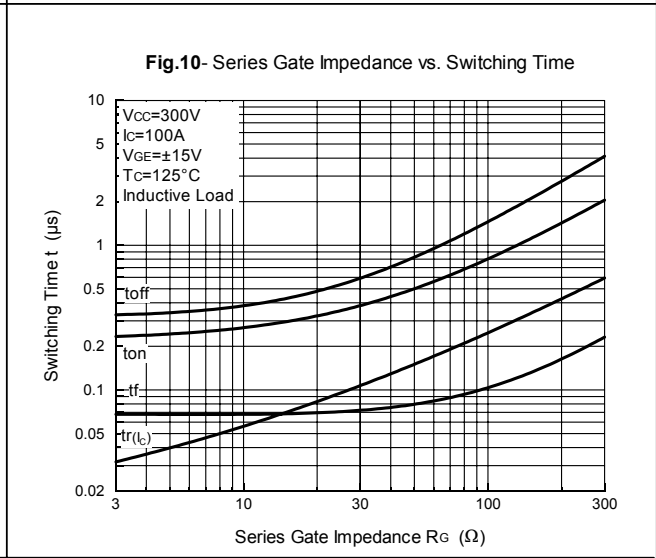
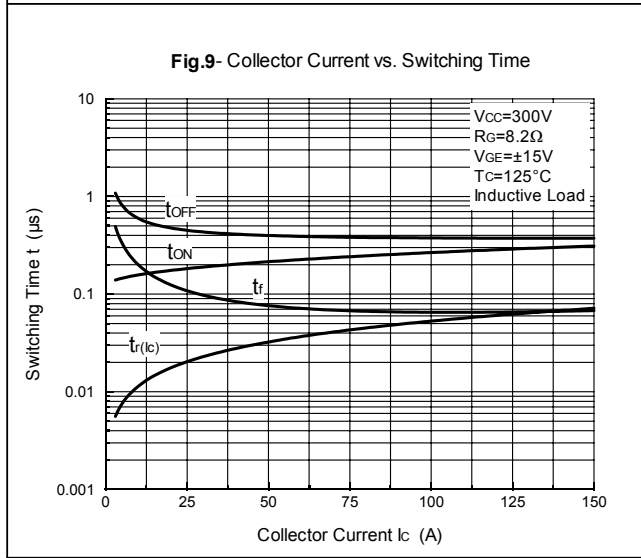
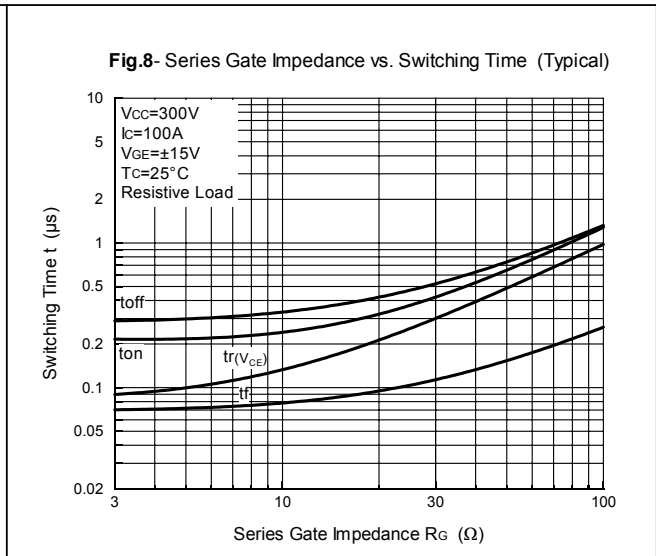
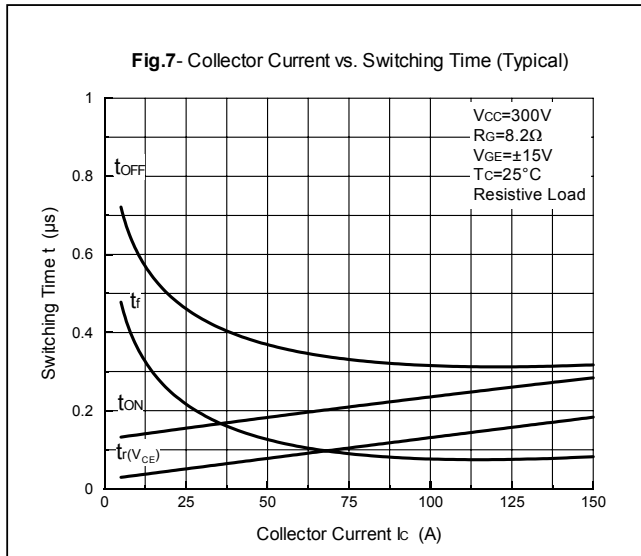
PTMB100E6

PTMB100E6C



PTMB100E6

PTMB100E6C



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