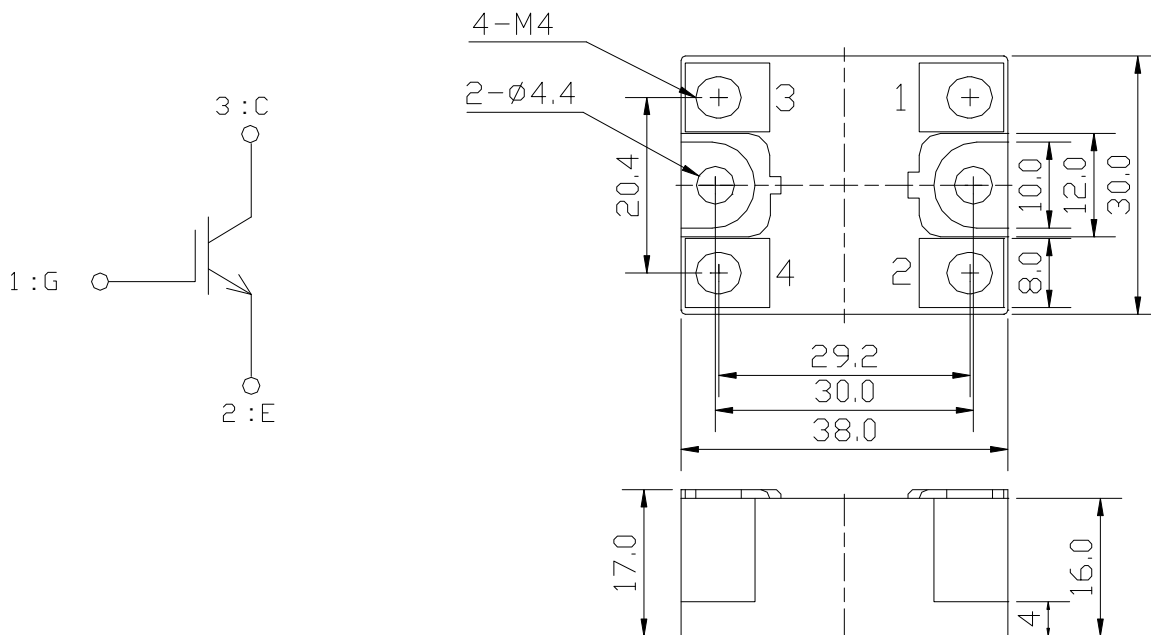


□ 回路図 : **CIRCUIT**

 □ 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}	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	100	A
	1ms	200	
コレクタ損失 Collector Power Dissipation	P_c	400	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, 1minute) Isolation Voltage	V_{ISO}	2,500	V(RMS)
締め付けトルク Mounting Torque	Module Base to Heatsink	1.4 (14.3)	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}	$V_{CE}=600\text{V}, V_{GE}=0\text{V}$	—	—	1.0	mA
ゲート漏れ電流 Gate-Emitter Leakage Current	I_{GES}	$V_{GE}=\pm 20\text{V}, V_{CE}=0\text{V}$	—	—	1.0	μA
コレクタ・エミッタ間飽和電圧 Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{A}, V_{GE}=15\text{V}$	—	2.1	2.6	V
ゲートしきい値電圧 Gate-Emitter Threshold Voltage	$V_{GE(th)}$	$V_{CE}=5\text{V}, I_C=100\text{mA}$	4.0	—	8.0	V
入力容量 Input Capacitance	C_{ies}	$V_{CE}=10\text{V}, V_{GE}=0\text{V}, f=1\text{MHz}$	—	5,000	—	pF
スイッチング時間 Switching Time	上昇時間 Rise Time	$V_{CC}=300\text{V}$ $R_L=3.0\Omega$ $R_G=8.2\Omega$ $V_{GE}=\pm 15\text{V}$	—	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	

 □ 熱的特性 : **THERMAL CHARACTERISTICS**

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
熱抵抗 Thermal Impedance	$R_{th(j-c)}$	Junction to Case (T_c チップ直下での測定点)	—	—	0.31	$^\circ\text{C}/\text{W}$

Fig.1- Output Characteristics (Typical)

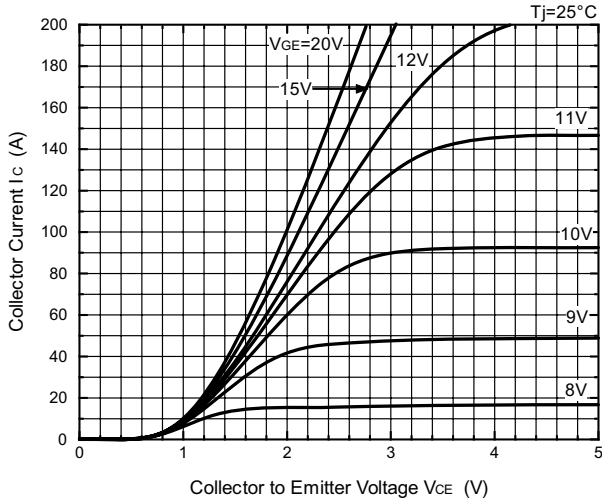


Fig.2- Output Characteristics (Typical)

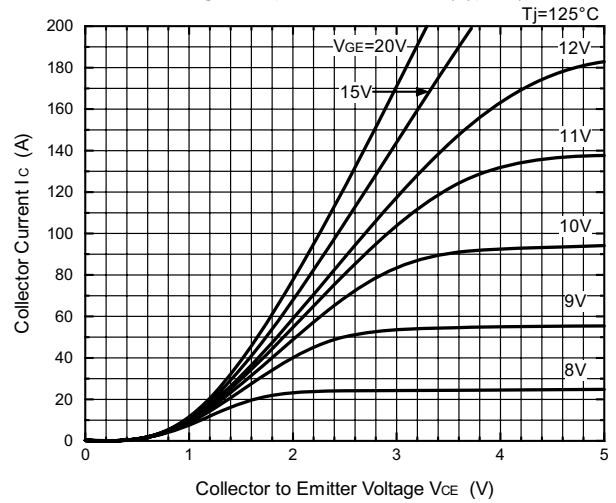


Fig.3- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

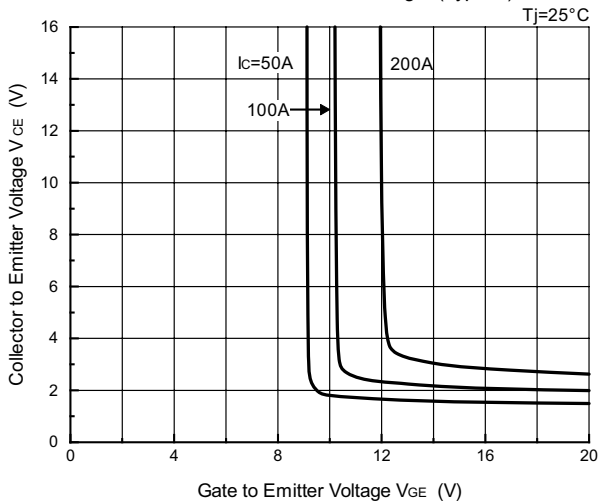


Fig.4- Collector to Emitter On Voltage vs. Gate to Emitter Voltage (Typical)

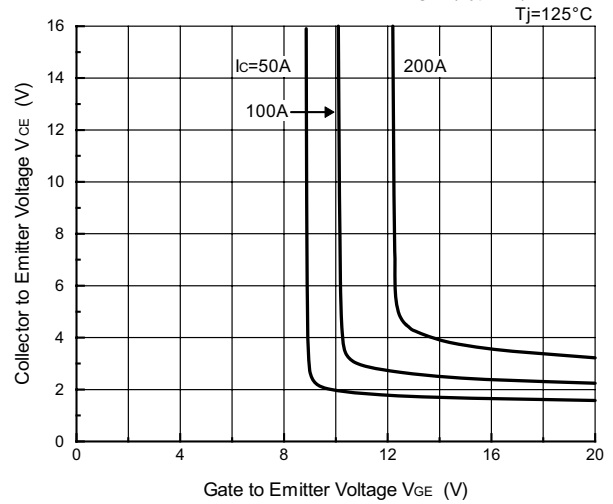


Fig.5- Gate Charge vs. Collector to Emitter Voltage (Typical)

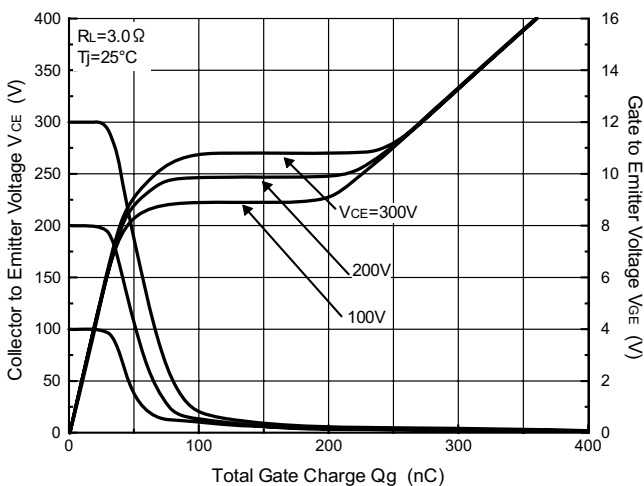


Fig.6- Capacitance vs. Collector to Emitter Voltage (Typical)

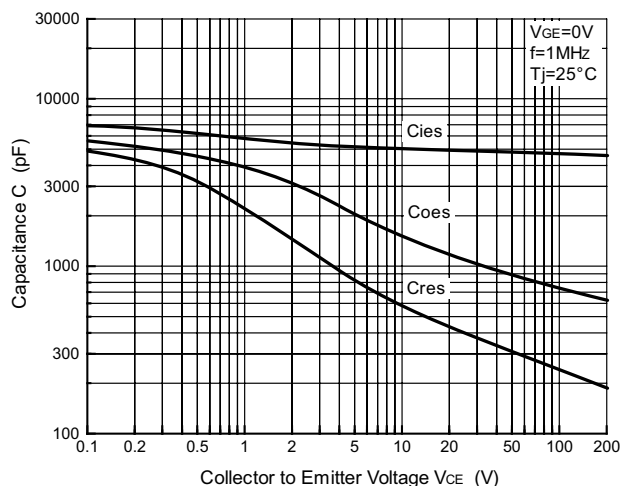


Fig.7- Collector Current vs. Switching Time (Typical)

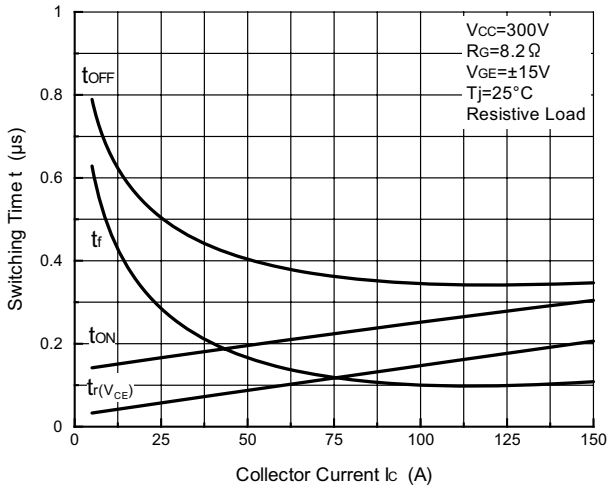


Fig.8- Series Gate Impedance vs. Switching Time (Typical)

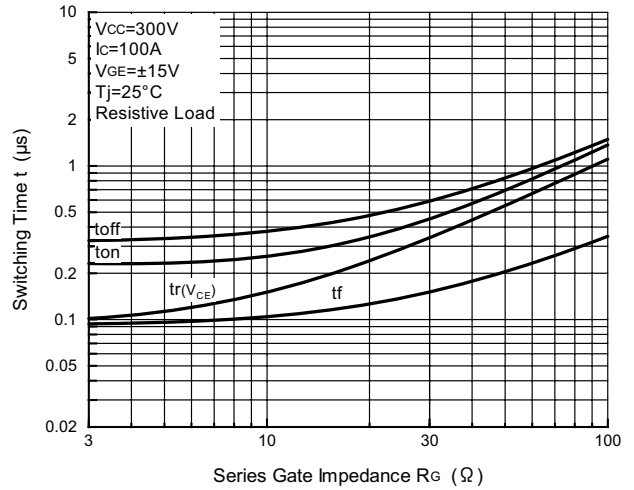


Fig.9- Collector Current vs. Switching Time

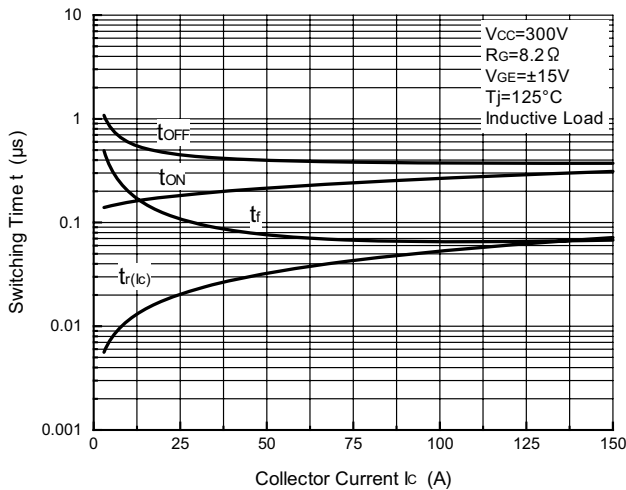


Fig.10- Series Gate Impedance vs. Switching Time

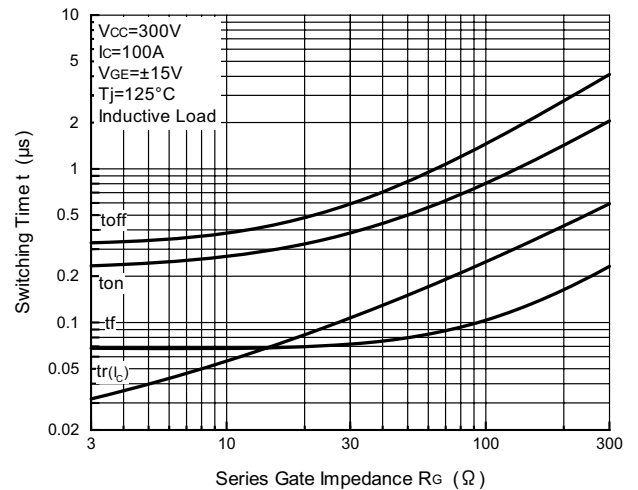


Fig.11- Collector Current vs. Switching Loss

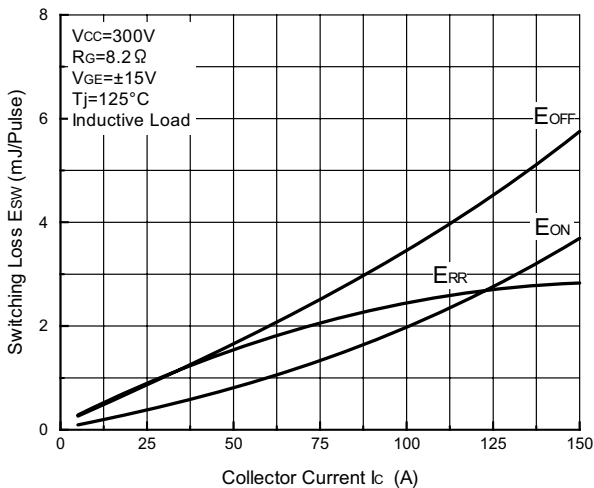


Fig.12- Series Gate Impedance vs. Switching Loss

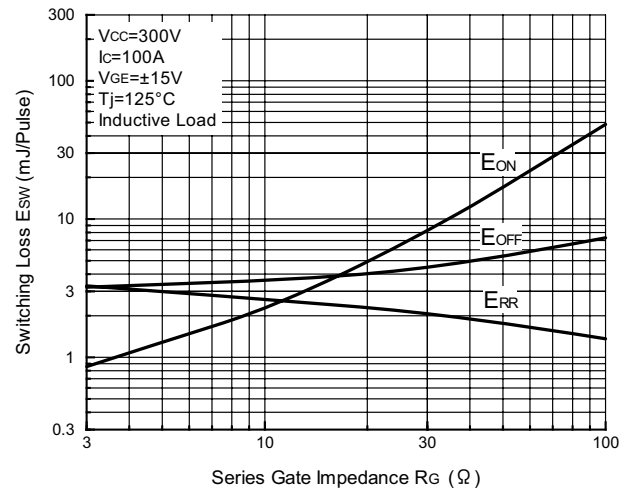


Fig.13 - Reverse Bias Safe Operating Area

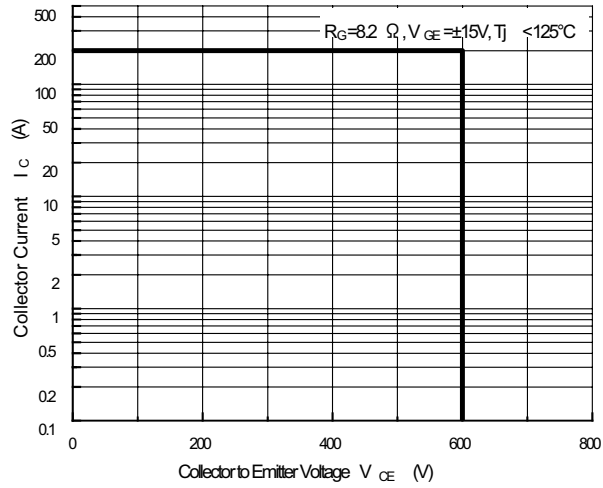


Fig.14 - Transient Thermal Impedance

