Features：

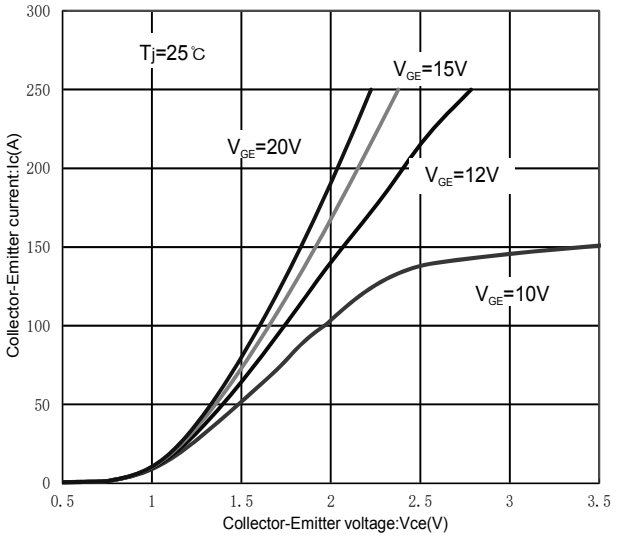
- High speed switching
- Voltage drive
- Low inductance module structure

Typical Applications：

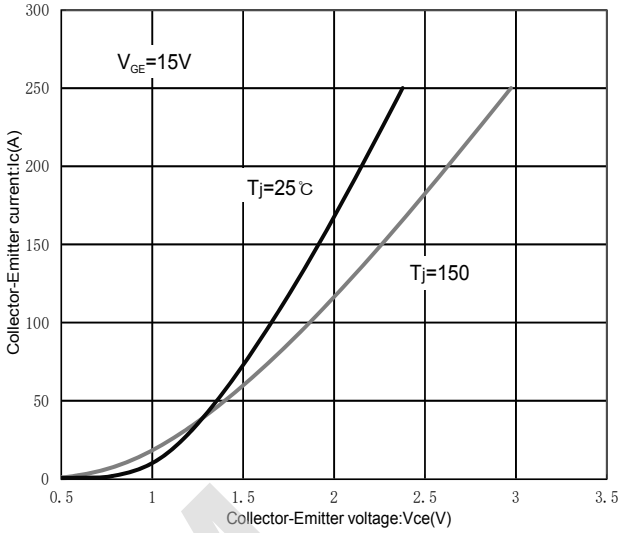
- Inverter for Motor Drive
- Inverter welding machines
- Uninterruptible Power Supply
- Industrial machines

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VALUE			UNIT
			Min	Type	Max	
V_{CES}	Collector-Emitter voltage	T_j=25°C			1250	V
V_{GES}	Gate-Emitter voltage	T_j=25°C			±30	V
I_C	Collector current	Continuous@ T_C=100°C			150	A
I_{CP}		t_p= 1ms			300	A
P_C	Collector power dissipation	T_j=150°C ,1 device			595	W
T_j	Junction temperature	/			175	℃
T_{stg}	Storage temperature	/	-40		125	℃
V_{iso}	Isolation between terminal and copper base	T_j=25°C , AC：1minute	2500			V
Screw torque	Mounting(M6)	/	4.5		6.0	N·m
	Terminals(M5)	/	2.5		4.5	N·m
I_{CES}	Zero gate voltage collector current	T_j=25°C ,V_{CE}=1200V，V_{GE}=0V			1.0	mA
I_{GES}	Gate-Emitter leakage current	T_j=25°C ,V_{CE}=0V，V_{GE}=±20V			±2	μA
$V_{GE(th)}$	Gate-Emitter threshold voltage	T_j=25°C ,V_{CE}=20V，I_C=150mA	4.5		8.5	V
$V_{CE(sat)}$	Collector-Emitter saturation voltage	T_j=25°C ,V_{GE}=15V，I_C=150A		1.80	2.40	V
		T_j=125°C ,V_{GE}=15V，I_C=150A		1.95		V
		T_j=150°C ,V_{GE}=15V，I_C=150A		2.25		V
C_{ies}	Input capacitance	T_j=25°C ,V_{CE}=10V，V_{GE}=0V，f=1MHz		12.6		nF
t_{on}	Turn-on time	T_j=150°C ,V_{CC}=600V，I_C=150A，V_{GE}=±15V，R_G=5.1Ω，Inductive load		160		ns
t_r				50		ns
t_{off}	Turn-off time			680		ns
t_f				250		ns
tsc	Short circuit withstand time	T_j=150°C ,Vcc=720V,V_{GE}=±15V，R_G=5.1Ω	10			μs
V_F	Forward on voltage	T_j=25°C ,I_F=150A		2.10	2.60	V
		T_j=125°C ,I_F=150A		2.00		V
		T_j=150°C ,I_F=150A		1.90		V
t_{rr}	Reverse recovery time	T_j=125°C ,I_F=150A		150		ns
		T_j=150°C ,I_F=150A		160		ns
$R_{th(j-c)}$	Thermal resistance(per chip)	IGBT			0.21	℃/W
		FWD			0.31	℃/W
$R_{th(c-f)}$	Contact thermal resistance (per module)	With thermal compound		0.05		℃/W
W_t	Weight				155	g
Outline	251H3					

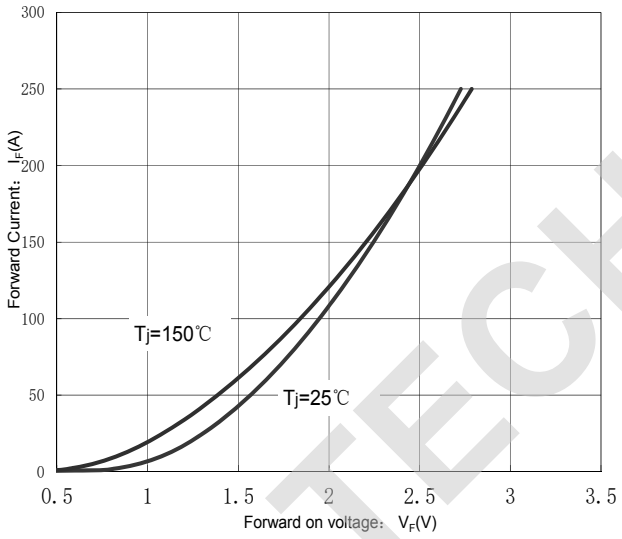
Collector current VS.Collector-Emitter voltage



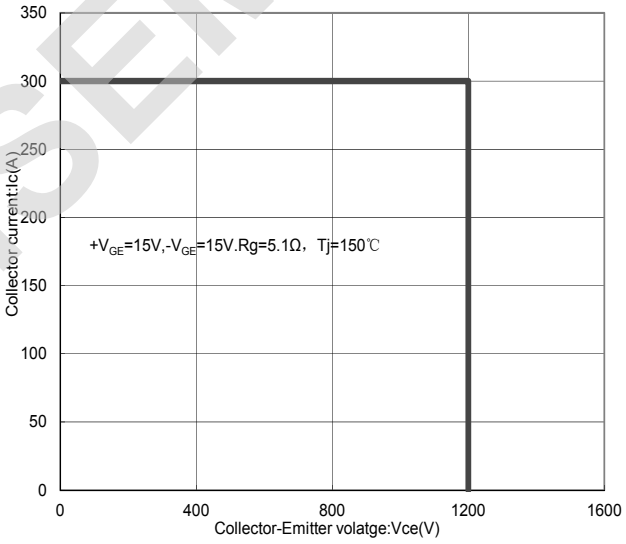
Collector current VS.Collector-Emitter voltage



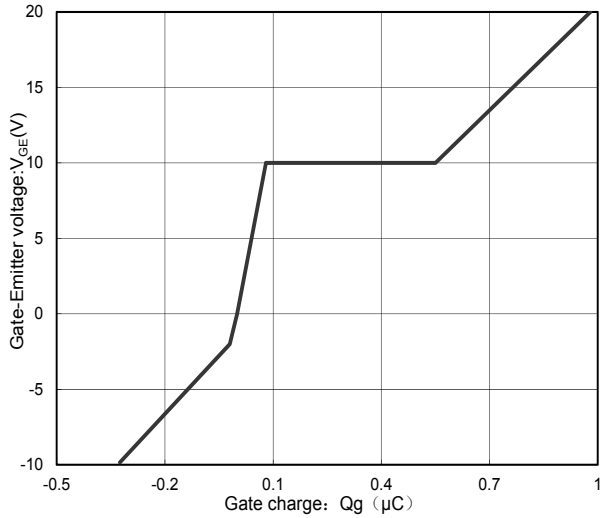
Forward Current VS. Forward Voltage



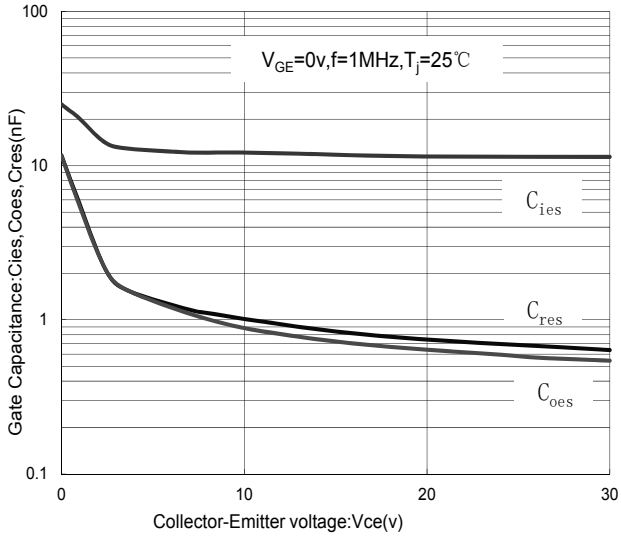
Reverse bias safe operating area



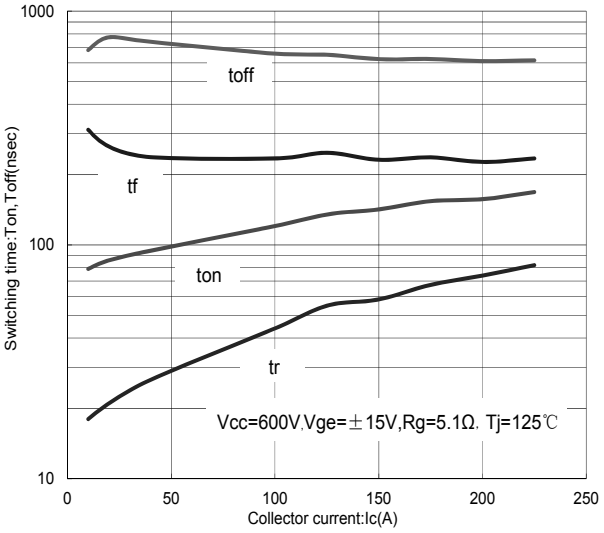
Dynamic Gate Charge(type)



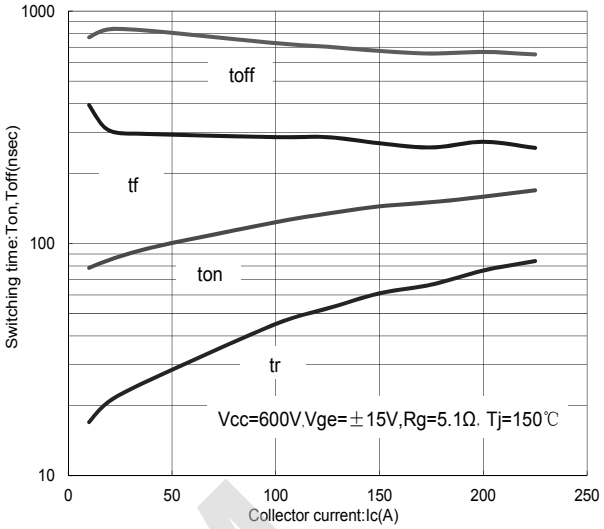
Gate Capacitance vs.Collector-Emitter Voltage



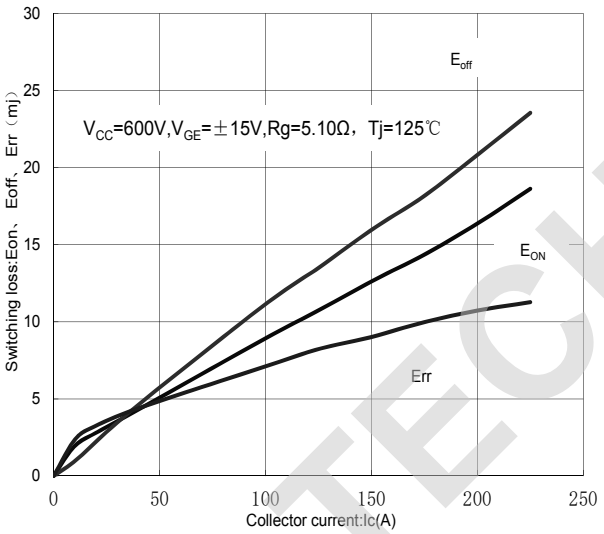
Switching time vs.Collector current



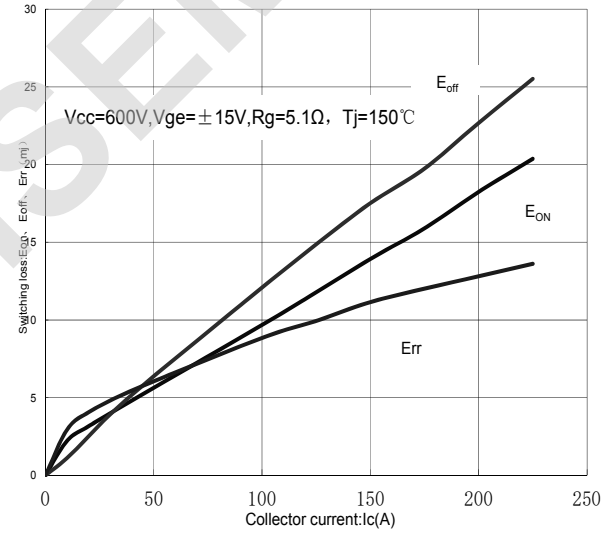
Switching time vs.Collector current



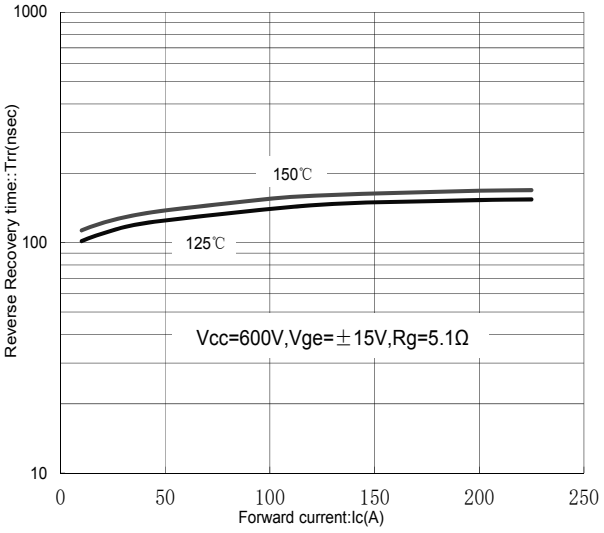
Switching loss vs.Collector current



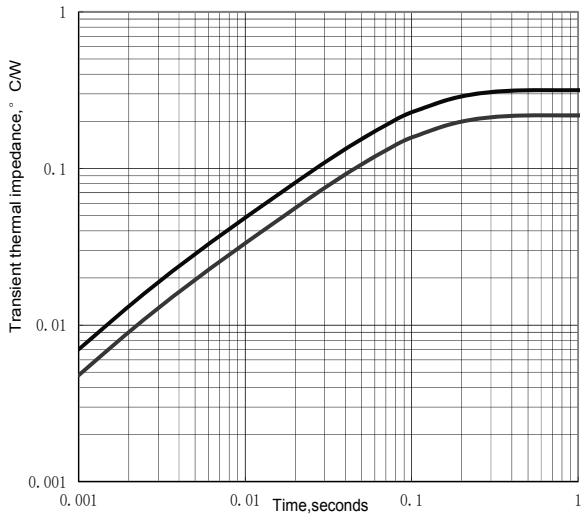
Switching loss vs.Collector current



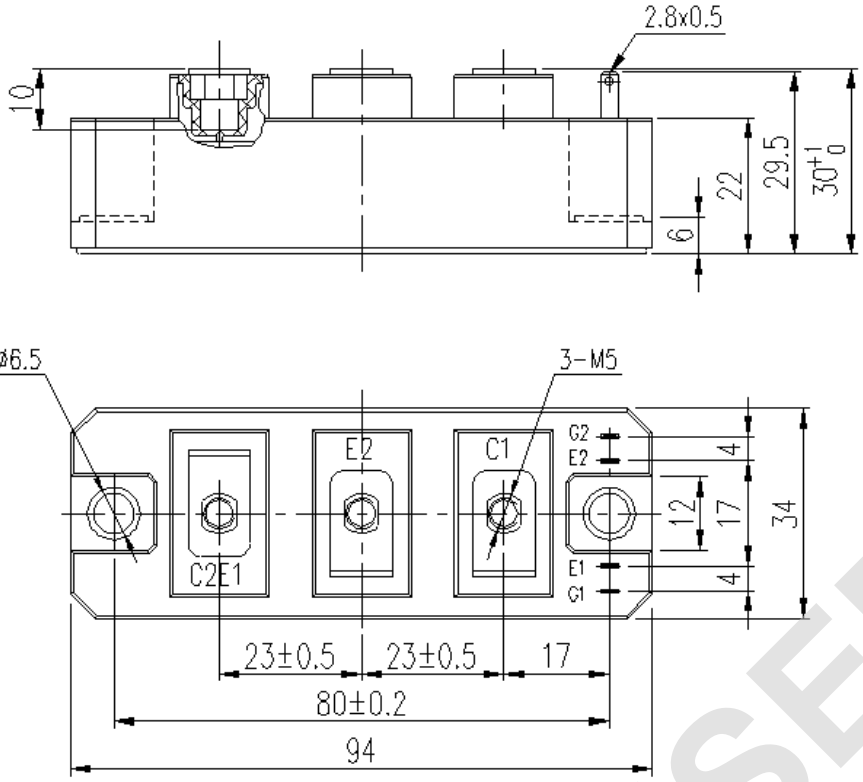
Reverse Recovery time vs.Collector current

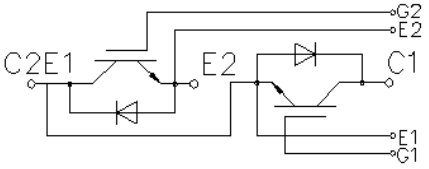


Max. junction to case thermai impedance



Outline & Circuit Diagram





Unmarked dimensional tolerance：±0.5mm