Features：

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

Typical Applications：

- Inverter for Motor Drive
- AC and DC Servo Drive Amplifier
- Uninterruptible Power Supply
- Industrial machines

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VALUE			UNIT
			Min.	Typ.	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_j=25°C , 1ms			300	A
P_C	Collector power dissipation	T_C=25°C ,1 device			750	W
T_j	Junction temperature	/			175	℃
$T_{vj(op)}$	Temperature under switching conditions	$T_{vj\ op}$ > 150℃ is only allowed for operation at overload conditions.	-40		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(M5)	/	2.4		3.0	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	6.5	8.5	V
$V_{CE(sat)}$	Collector-Emitter saturation voltage	T_j=25°C ,V_{GE}=15V，I_C=150A		1.80	2.4	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=6.8Ω，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,VGE=±15V，R_G=6.8Ω	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		
$R_{th(j-c)}$	Thermal resistance(1 device)	IGBT			0.20	℃/W
		FWD			0.30	℃/W
$R_{th(c-f)}$	Contact thermal resistance (1 device)	With thermal compound		0.050		℃/W
W_t	Weight				290	g
Outline	M40					

NTC-Thermistor Characteristic Values

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VALUE			UNIT
			Min	Type	Max	
R_{25}	Rated resistance	T_C=25°C		5.00		kΩ
△R/R	Deviation of R100	T_C=100°C ,R_{100}=493Ω	-5		5	%
P_{25}	Power dissipation	T_C=25°C			20.0	mW
$B_{25/50}$	B-value	$R_2=R_{25}\exp[B_{25/50}(1/T_2-1/(298.15\ K))]$		3375		K

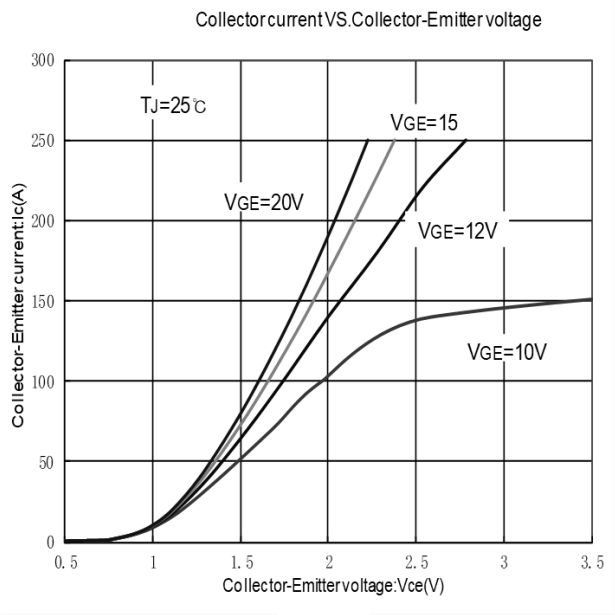


Fig.1

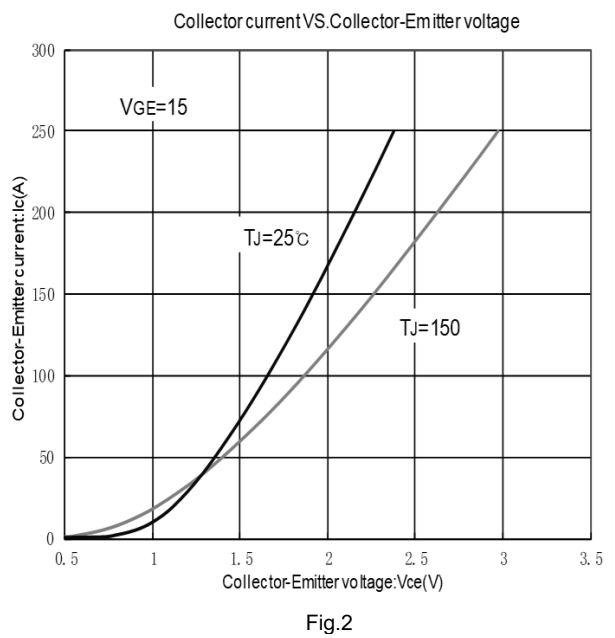


Fig.2

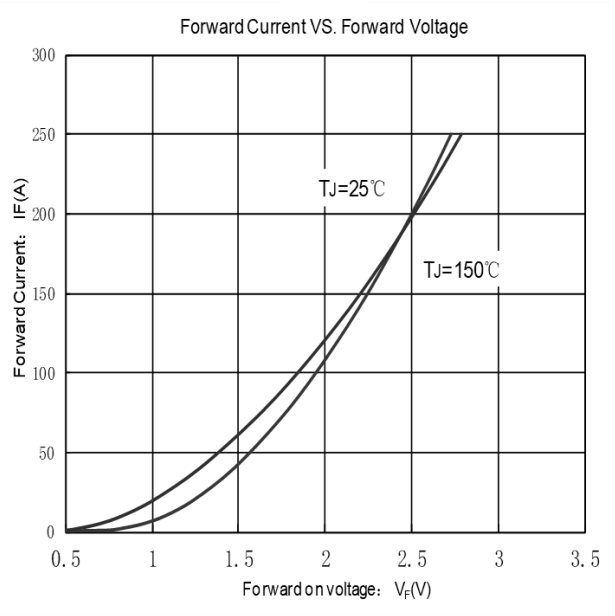


Fig.3

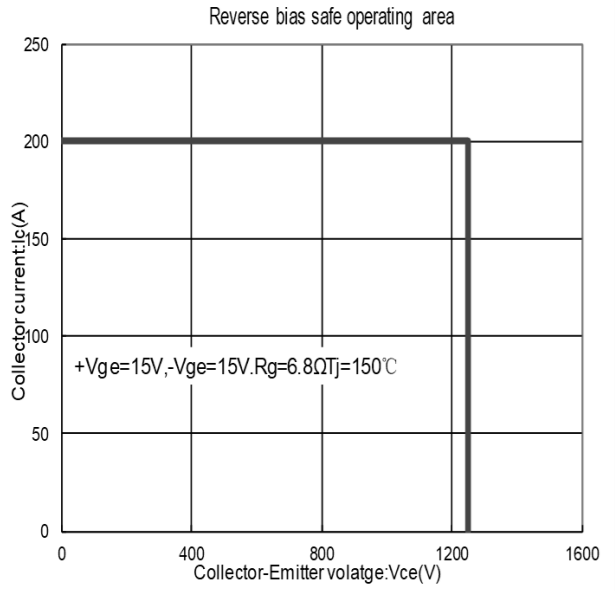


Fig.4

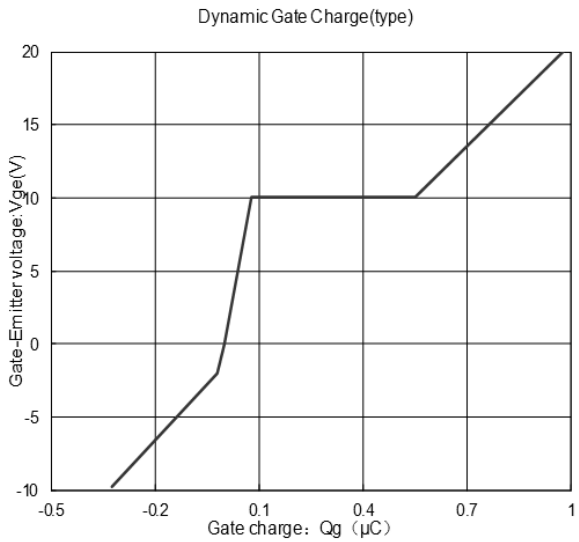


Fig.5

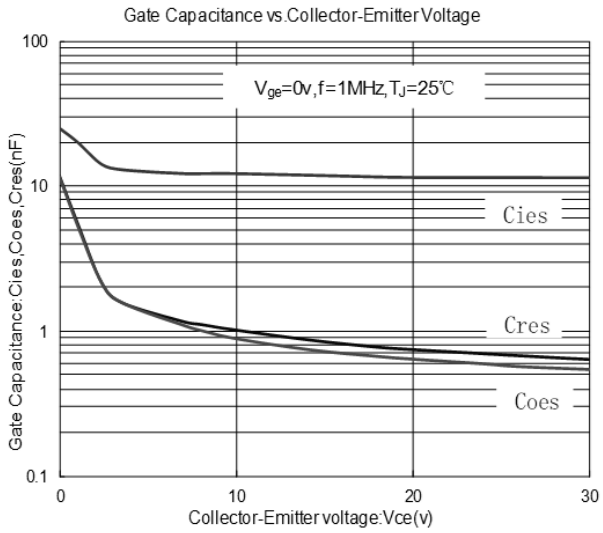


Fig.6

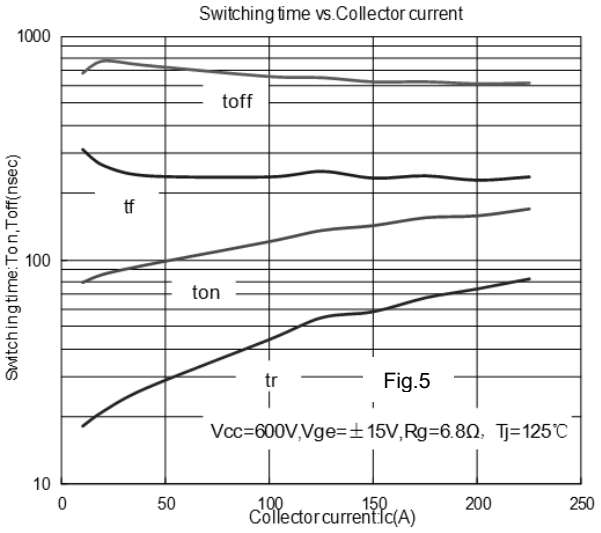


Fig.5

Fig.7

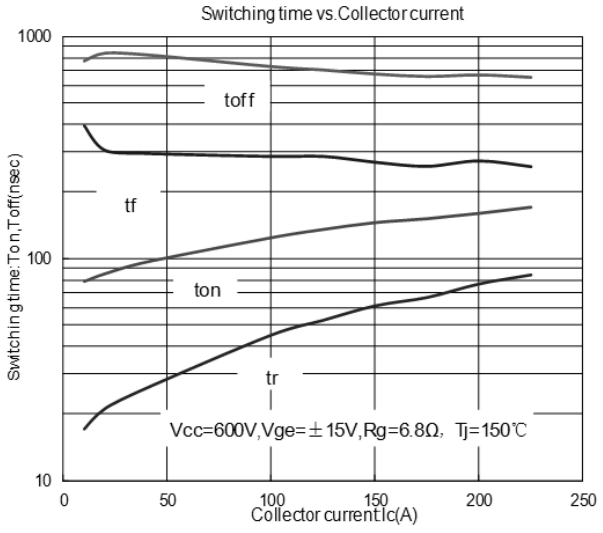


Fig.8

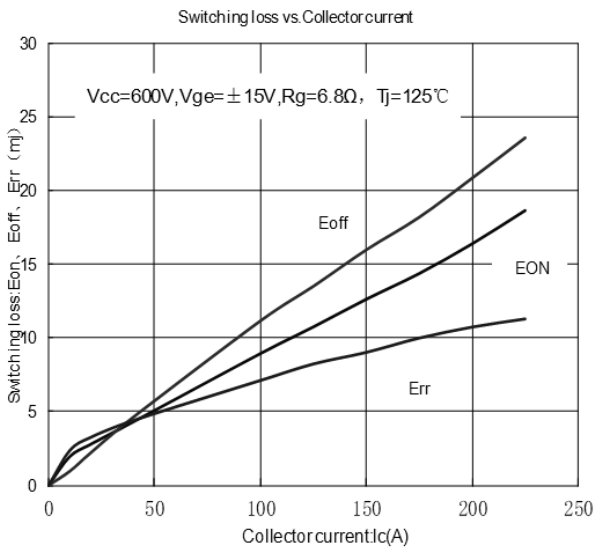


Fig.9

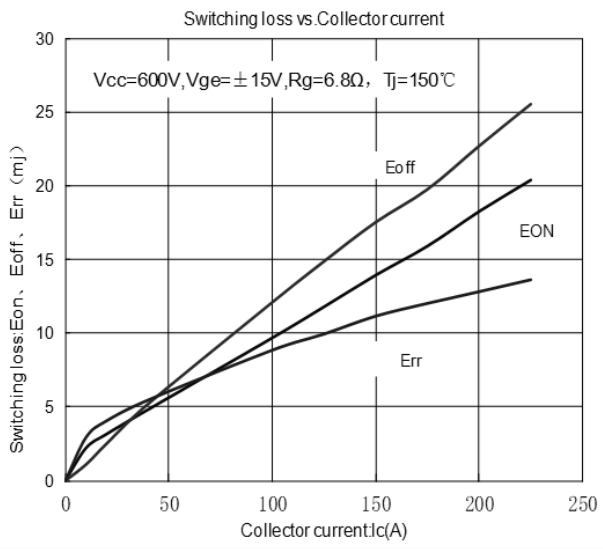


Fig.10

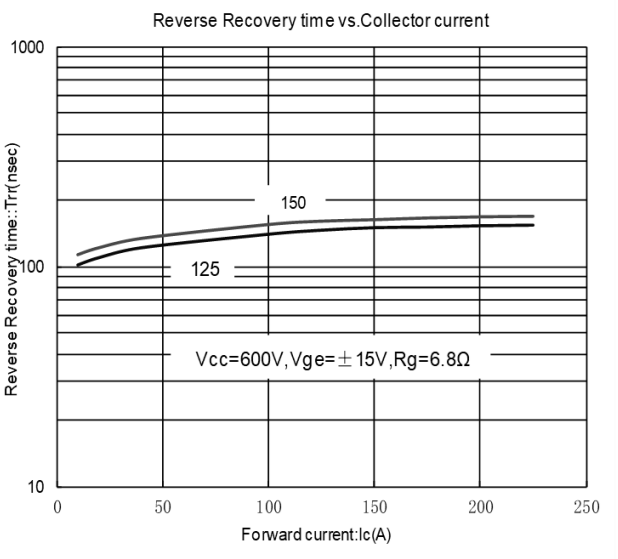


Fig.11

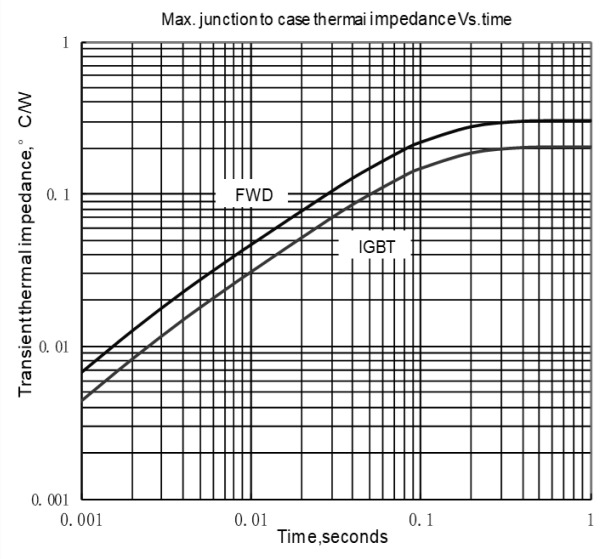
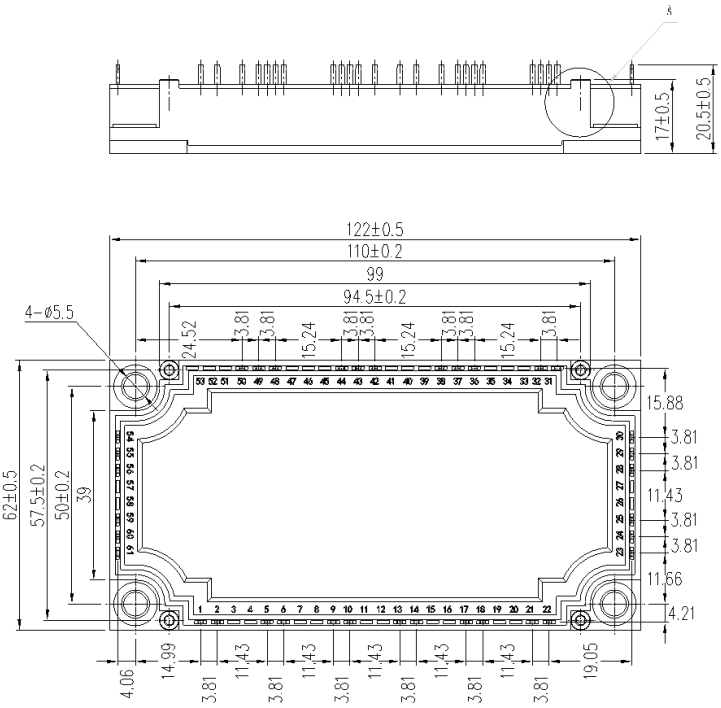
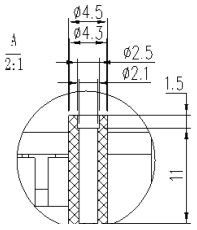
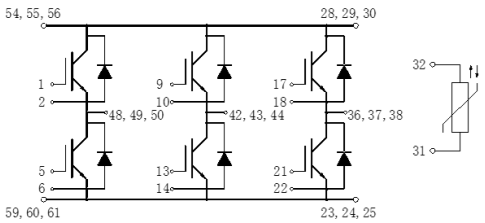


Fig.12





MT150MB120S



Unmarked dimensional tolerance：±0.5mm