

MTI 150.12-453H5

6 in 1 IGBT Modules

Output Current **150 A**

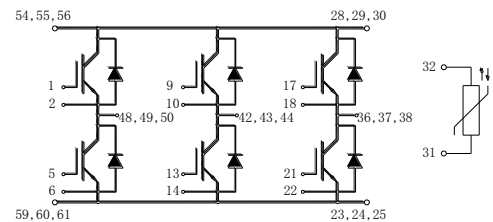


Features

High speed switching
Voltage drive
Low inductance module structure

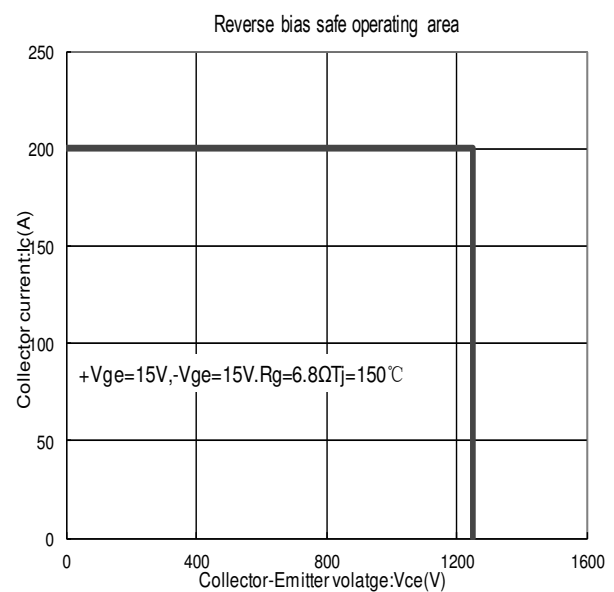
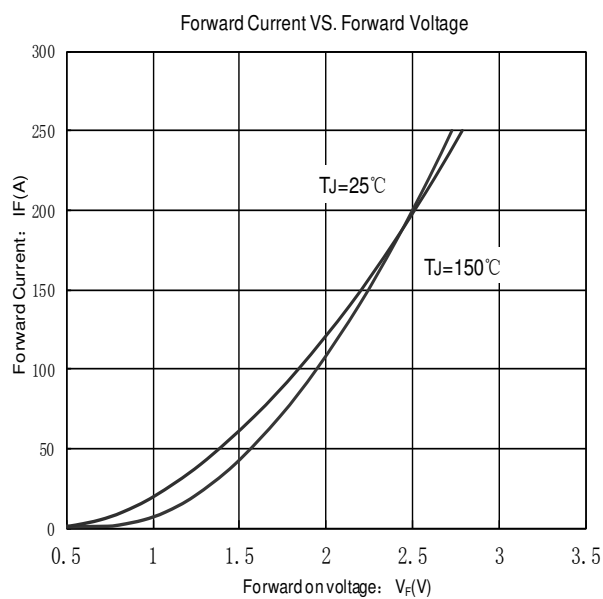
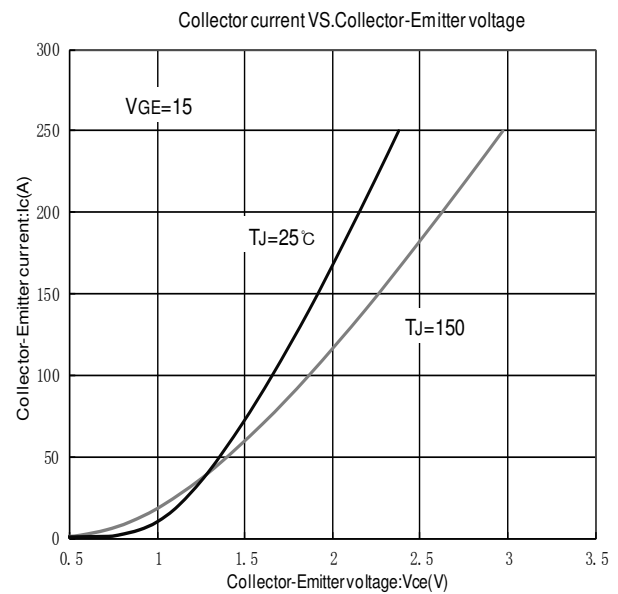
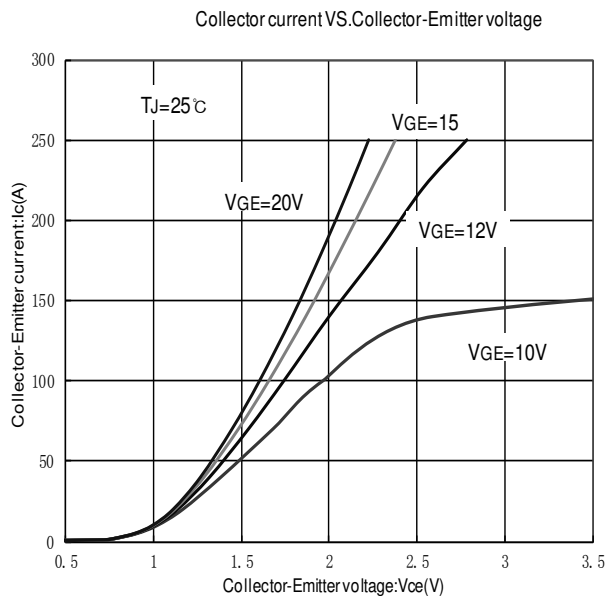
Applications

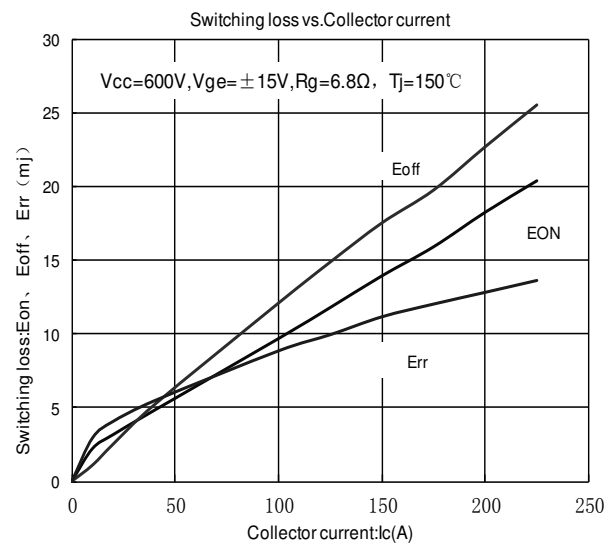
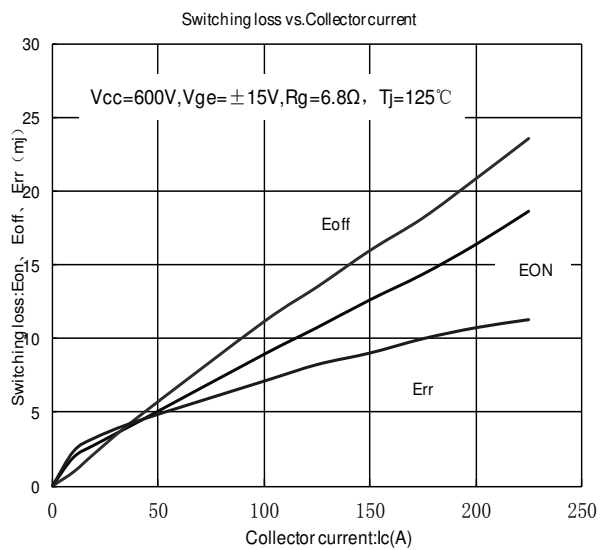
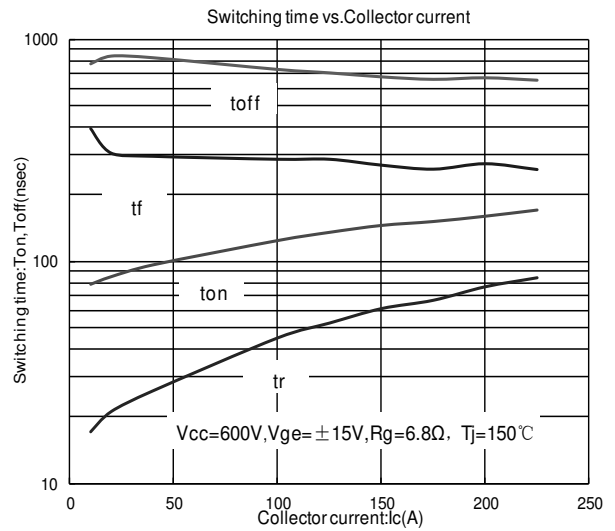
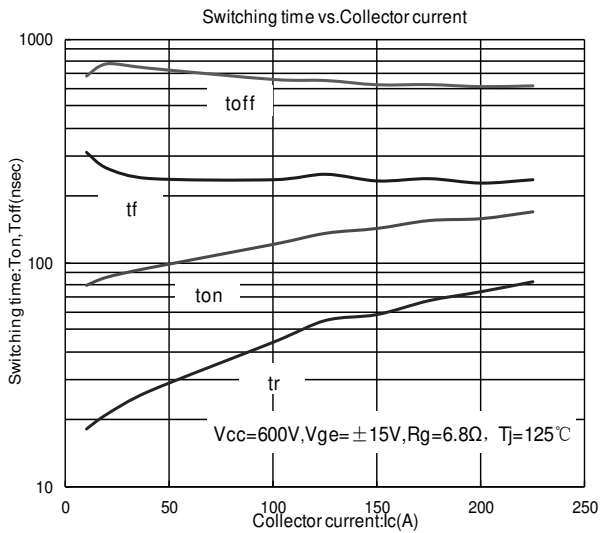
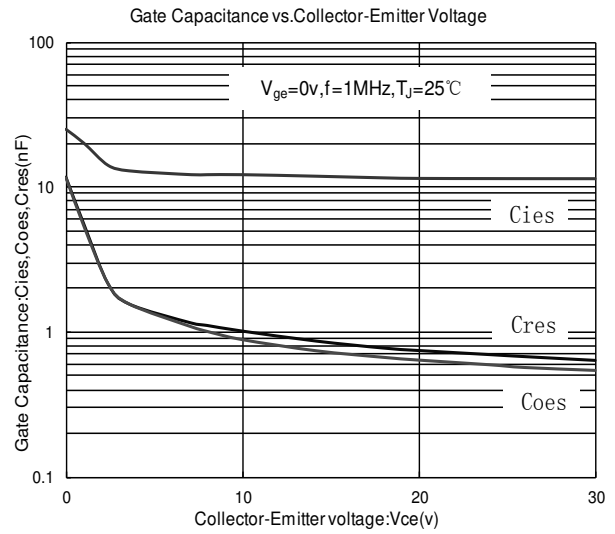
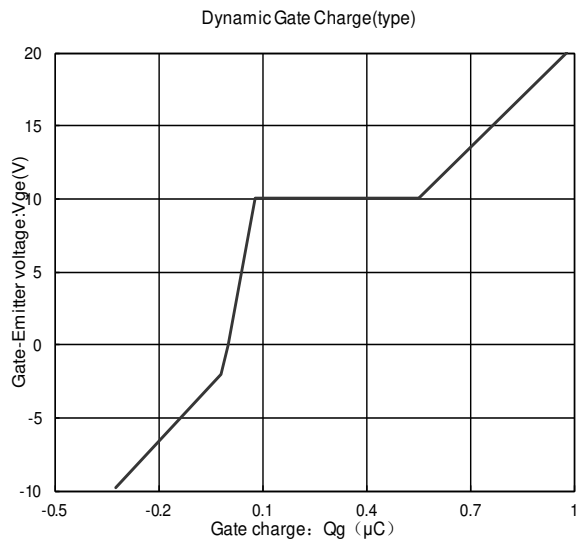
Inverter for Motor Drive
Inverter welding machines
Uninterruptible Power Supply
Industrial machines



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 @ TC =100°C			150	A
I _{CP}		T _j =25°C ,1ms			300	A
P _C	Collector power dissipation	T _j =150°C ,1 device			595	W
T _J	Junction temperature	/			175	°C
T _{stg}	Storage temperature	/	-40		125	°C
V _{iso}	Isolation between terminal and copper base	T _j =25°C ,AC : 1minute	3000			V
Screw torque	Mounting (M5)	/	3.0	3.5	4.5	N·m
I _{CES}	Zero gate voltage collector current	T _j =25°C ,V _{CE} =1200V, V _{GE} =0V			1	mA
I _{GES}	Gate-Emitter leakage current	T _j =25°C ,V _{CE} =0V, V _{GE} =±20V			±0,2	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 voltage saturation	T _j =25°C ,V _{GE} =15V, I _C =150A		1.80	2.25	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}				680		ns
t _r				250		ns
t _{SC}	Short Circuit Withstand Time	T _j =150°C ,V _{CC} =720V,V _{GE} =±15V,R _G =6.8Ω	10			μs
V _F	Forward on voltage	T _j =25°C ,I _F =150A		2.10	2.30	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 (1 device)	IGBT			0.20	°C/W
		FWD			0.30	°C/W
R _{th(c_f)}	Contact thermal resistance (1 device)	With thermal compound		0.050		°C/W
W _t	Weight				290	g

Symbol	Characteristic	Test Conditions	Value			Unit
			Min	Type	Max	
R25	Rated resistance	Tc=25°C		5.00		V
$\Delta R/R$	Deviation of R100	TC=100°C ,R100=493Ω	-5		5	V
P25	power dissipation	Tc=25°C			20.0	A
B25/50	B-value	$R2=R25\exp[B25/50(1/T2-1/(298.15\text{ K}))]$		3375		W





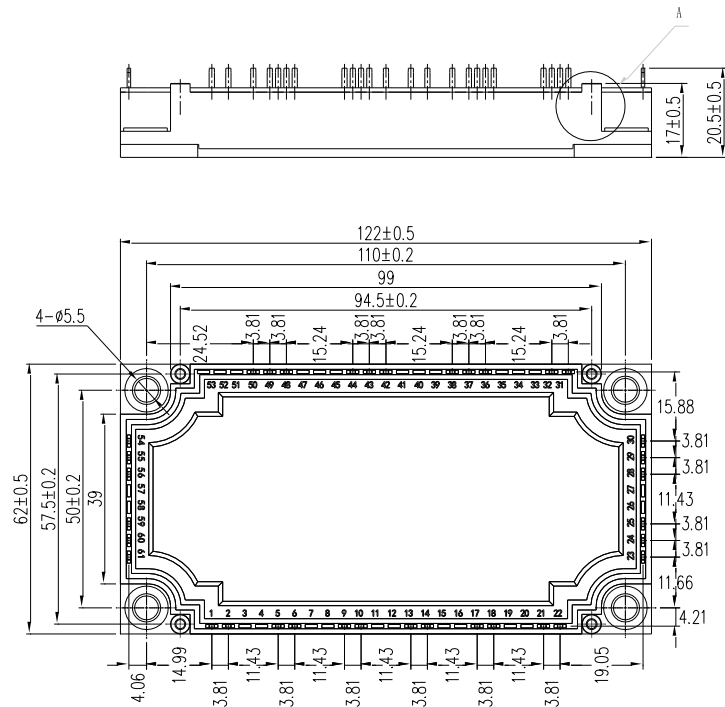
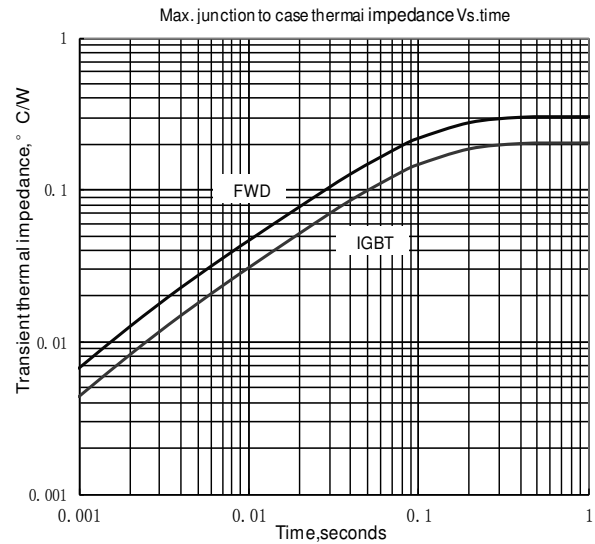


Fig.1 MTI150.12-LL-FIX5-LP-P110x50-TQ
Code:970001500090