

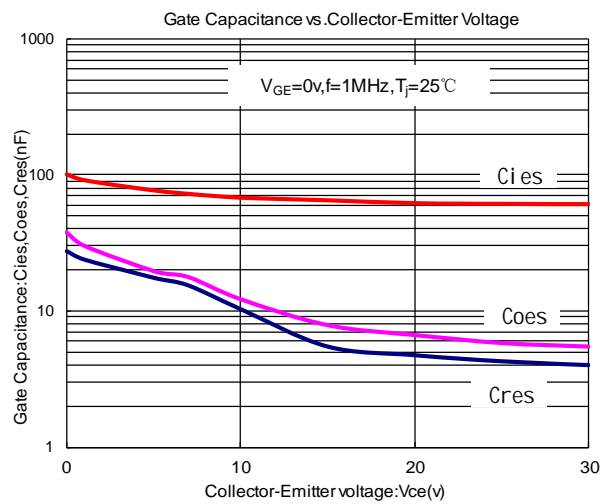
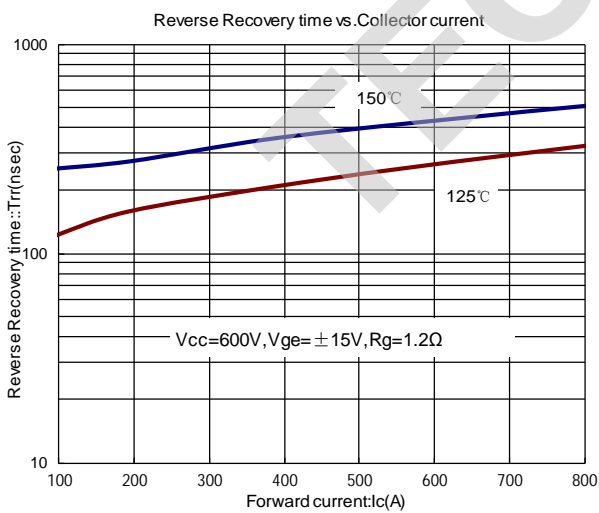
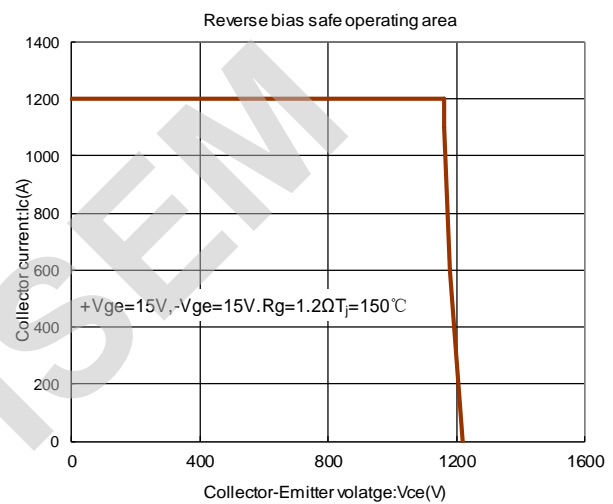
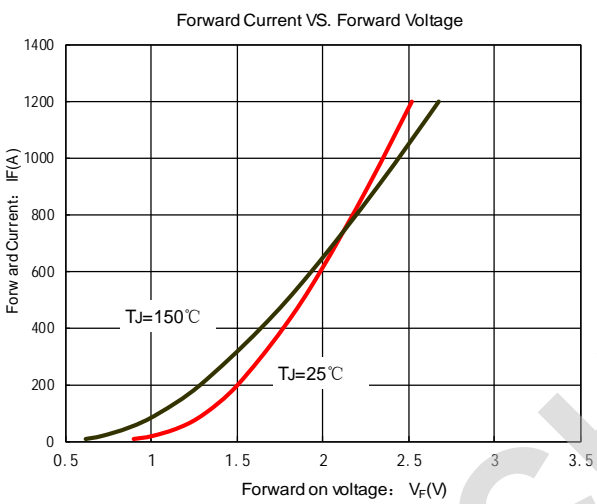
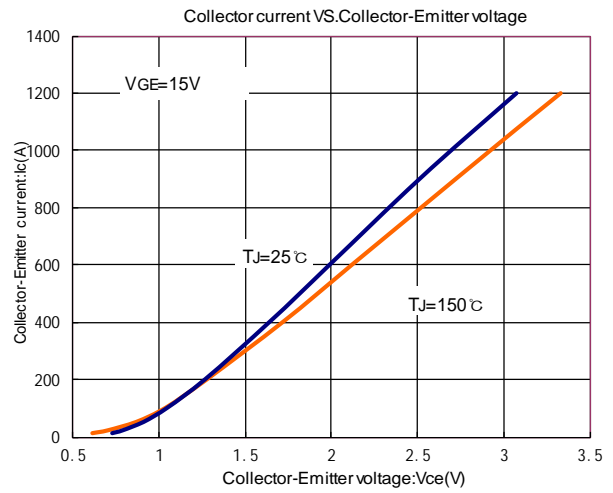
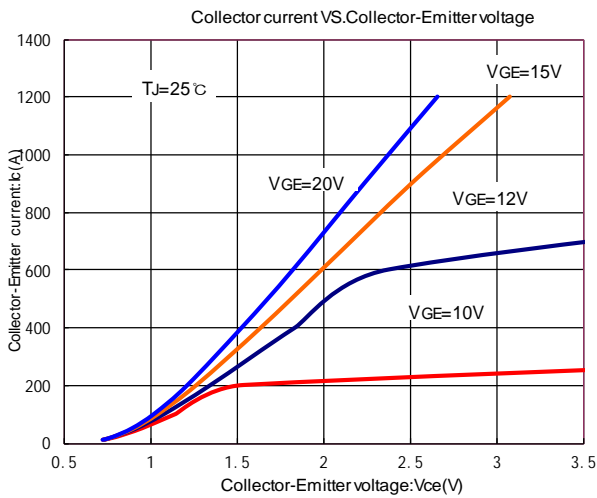
Features:

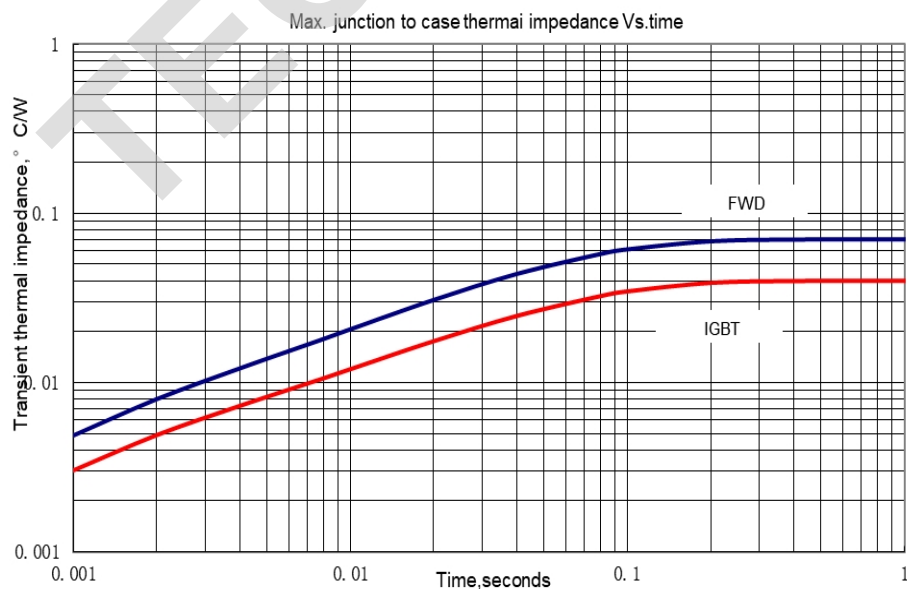
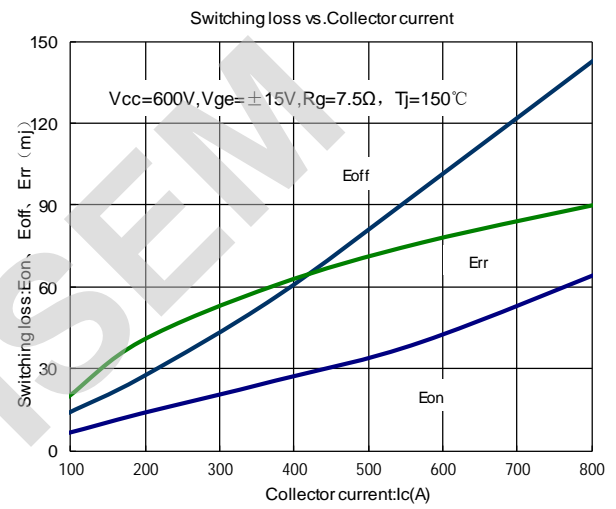
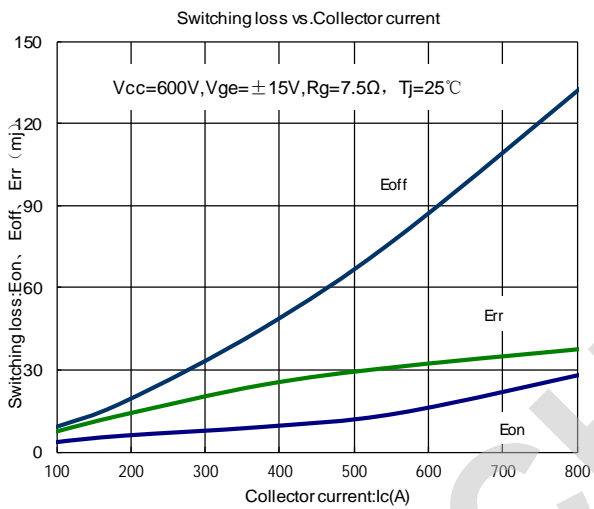
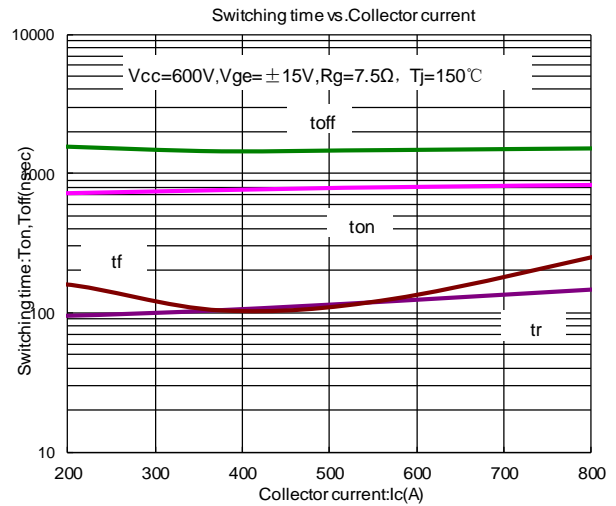
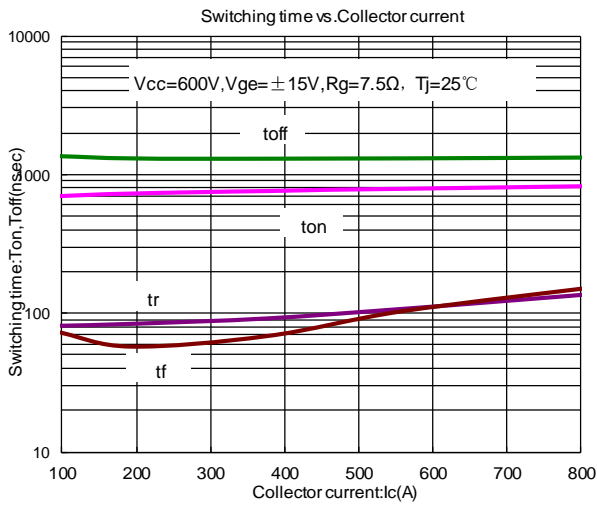
- n 10us short circuit capability
- n Low switching losses
- n VCE(sat) with Positive temperature coefficient
- n Fast & soft reverse recovery anti-parallel FWD
- n Isolated copper baseplate using DBC technology

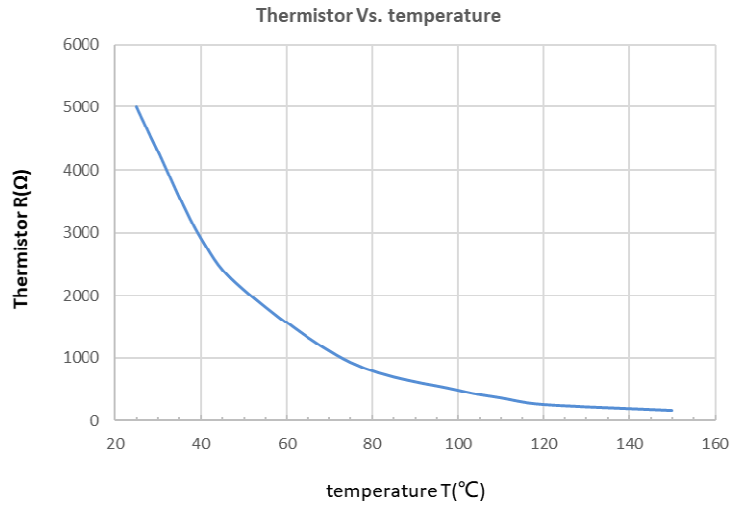
Typical Applications:

- n SMPS
- n UPS
- n VFD
- n Medical applications

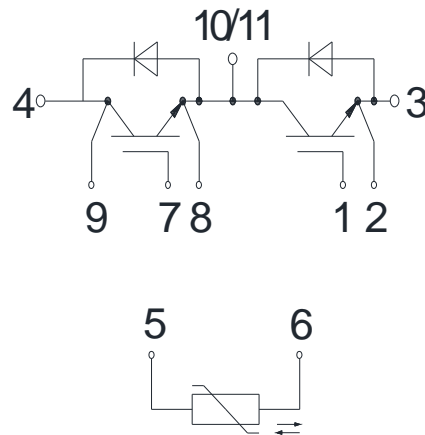
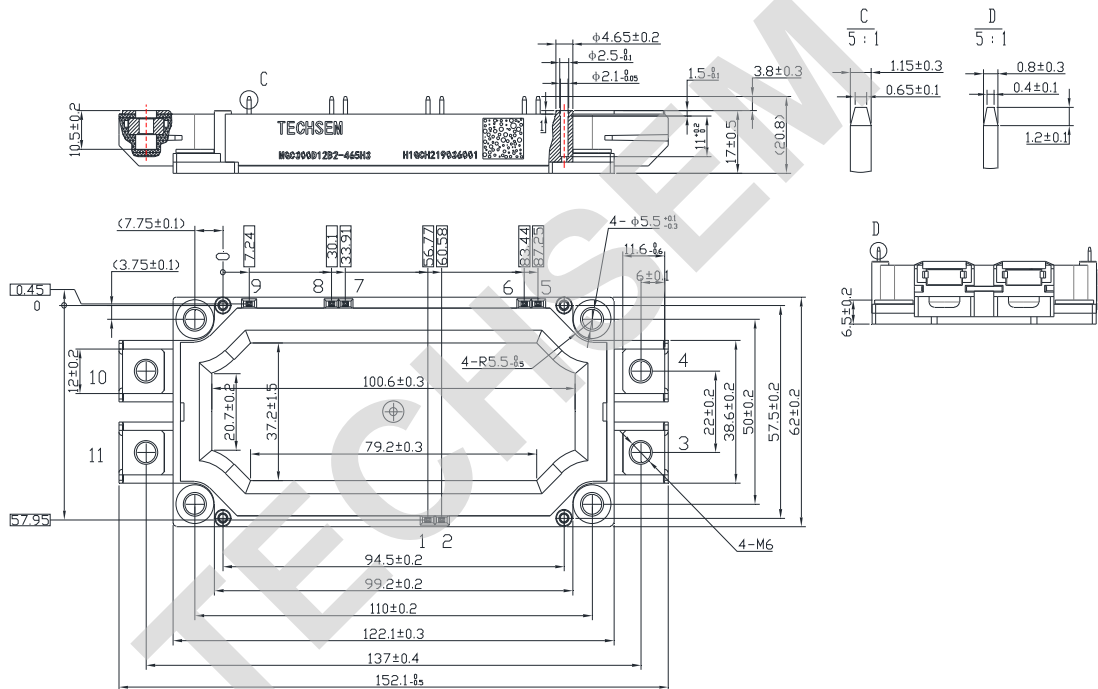
SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VALUE			UNIT
			Min	Type	Max	
V _{CES}	Collector-Emitter voltage	T _j =25°C			1200	V
V _{GES}	Gate-Emitter voltage	T _j =25°C			±20	V
I _C	Collector current	Continuous@ T _C =100°C			600	A
I _{CP}		T _P = 1ms			1200	A
T _j	Junction temperature	/			150	°C
T _{stg}	Storage temperature	/	-40		150	°C
V _{iso}	Isolation between terminal and copper base	T _j =25°C , AC: 1minute	2500			V
Screw torque	Mounting(M5)	/	3.0	4.5	6.0	N·m
	Terminals(M6)	/	3.0	4.5	6.0	N·m
I _{CES}	Zero gate voltage collector current	T _j =25°C , V _{CE} =1200V , V _{GE} =0V			1.5	mA
I _{GES}	Gate-Emitter leakage current	T _j =25°C , V _{CE} =0V , V _{GE} =±15V	-0.5		0.5	µA
V _{GE(th)}	Gate-Emitter threshold voltage	T _j =25°C , V _{CE} =20V , I _C =7.4mA	5.0	5.8	7.0	V
V _{CE(sat)}	Collector-Emitter saturation voltage	T _j =25°C , V _{GE} =15V , I _C =600A		1.8	2.3	V
Q _g	Gate Charge	T _j =25°C , V _{CE} =600V, I _C =600A, V _{GE} =15V		7.4		µC
R _{Gint}	Integrated gate resistor			3.5		Ω
C _{ies}	Input capacitance	T _j =25°C , V _{CE} =25V , V _{GE} =0V , f=1MHz		14		nF
C _{res}	Reverse transfer capacitance			0.5		nF
t _{on}	Turn-on time	V _{CC} =600V , I _C =600A , V _{GE} =±15V , R _g =1.5Ω , Inductive load	T _j =125°C	220		ns
t _r			T _j =125°C	100		ns
t _{off}	Turn-off time		T _j =125°C	650		ns
t _f			T _j =125°C	120		ns
t _{sc}	Short circuit withstand time	T _j =150°C , V _{CC} =600V, V _{GE} =± 15V , R _g =1.5 Ω		10		µs
V _F	Forward on voltage	T _j =25°C , I _F =600A		2.0	2.3	V
		T _j =125°C , I _F =600A		1.9		V
t _{rr}	Reverse recovery time	T _j =25°C , I _F =600A , di _F /dt=-250A/ µ s , V _R =600V		200		ns
R _{th(j-c)}	Thermal resistance(1 device)	IGBT		0.04		°C/W
		FWD		0.07		°C/W
R _{th(c-f)}	Contact thermal resistance (1 device)	With thermal compound		0.05		°C/W
R ₂₅	Resistance	T _{Vj} =25°C		5		kΩ
B _{25/50}	R ₂ =R ₂₅ exp [B25/50(1/T ₂ -1/(298,15K))]			3435		K
W _t	Weight			345		g
Outline	465H3P					







Outline & Circuit Diagram



TECHSEM reserves the right to change specifications without notice.