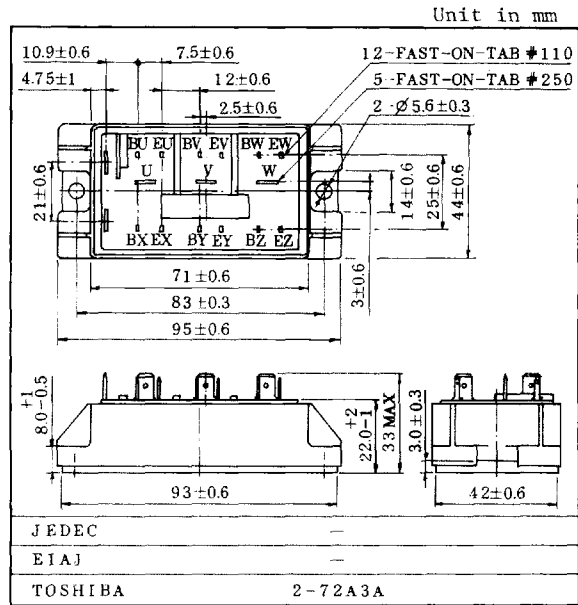


MG8N6ES1

GTR MODULE
SILICON N CHANNEL IGBT

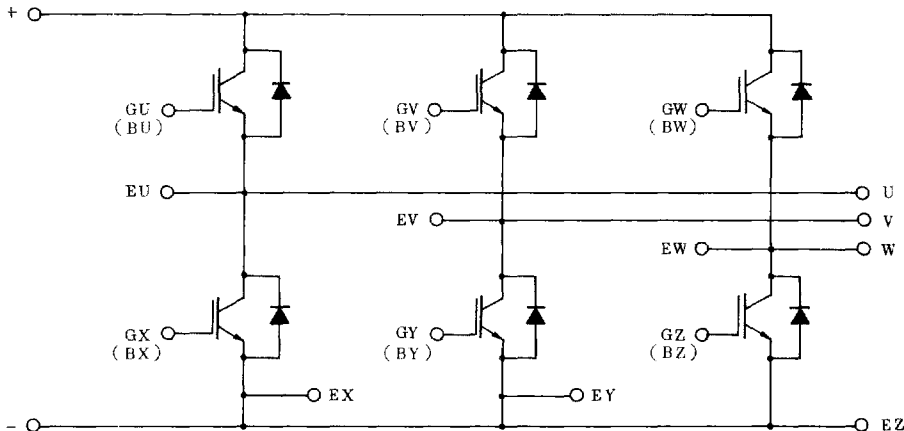
HIGH POWER SWITCHING APPLICATIONS.
MOTOR CONTROL APPLICATIONS.

- . The Collector is Isolated from Case.
- . 6 IGBTs are Built-in to 1 Package.
- . With Built-in Free Wheeling Diodes.
- . Low Saturation Voltage
 - : $V_{CE(sat)}=5V(\text{Max.})(I_C=8A)$
- . High Speed
 - : $t_f=1\mu s(\text{Max.})(I_C=8A)$



Weight : 225g

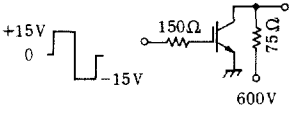
EQUIVALENT CIRCUIT

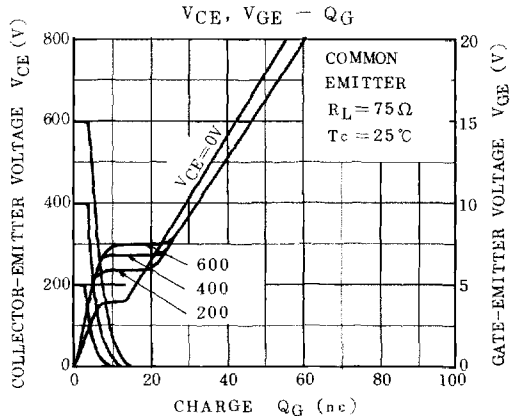
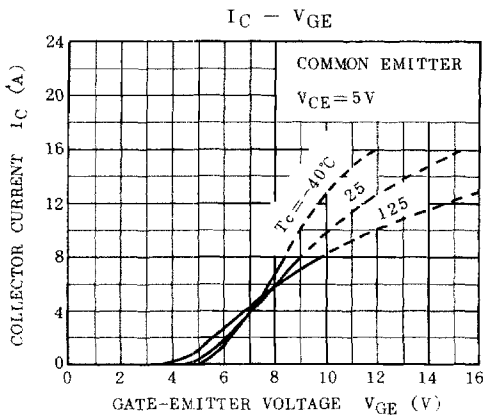
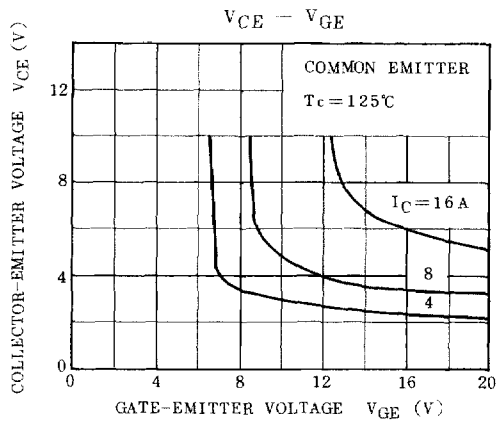
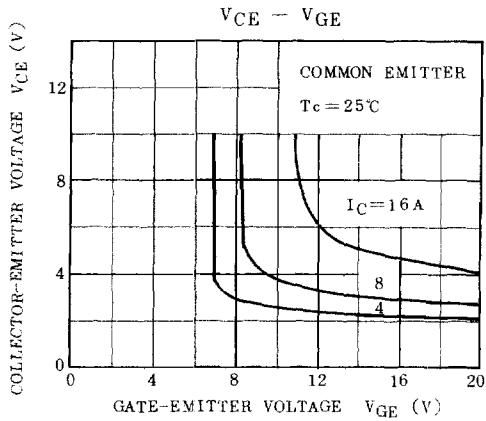
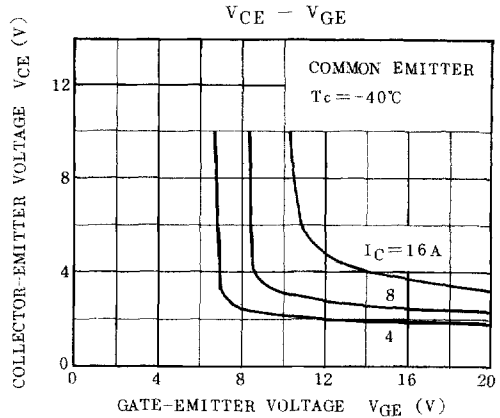
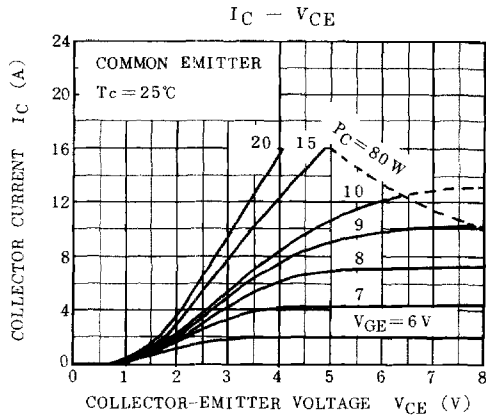


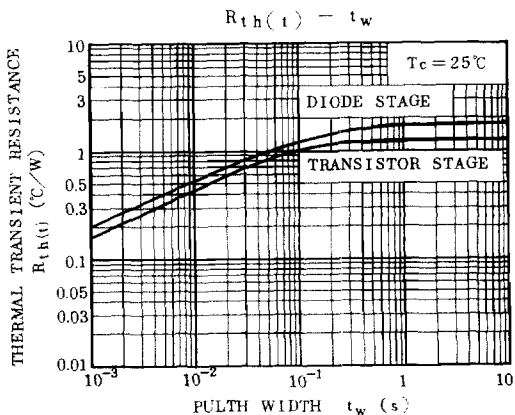
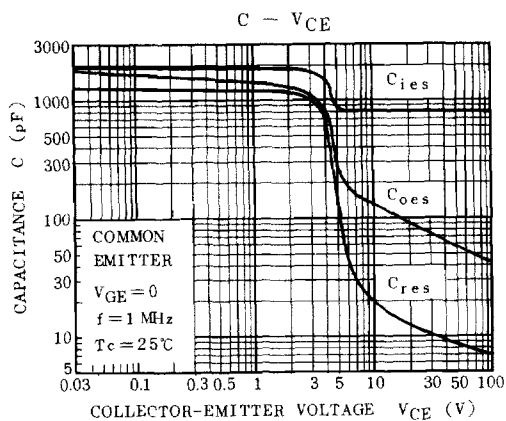
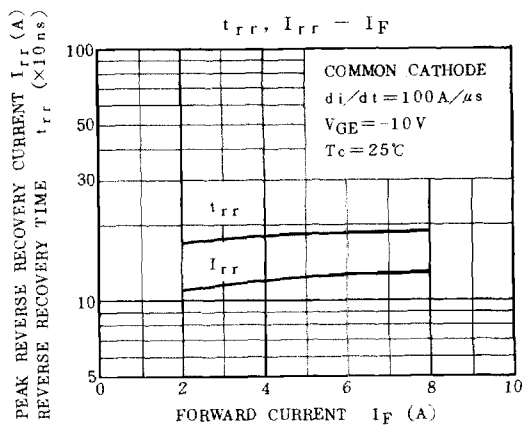
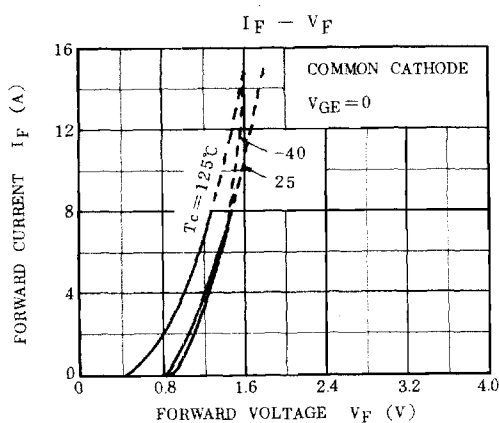
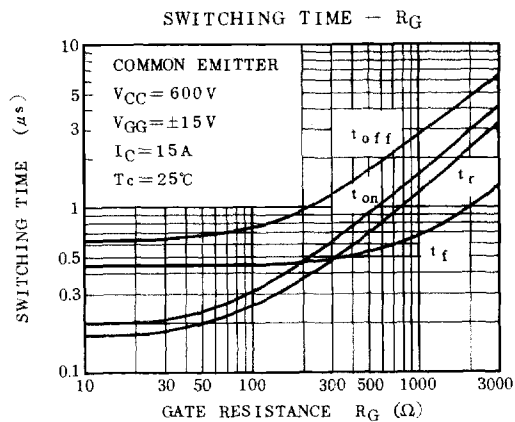
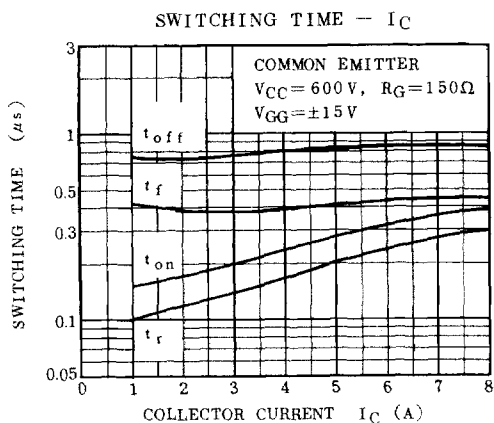
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Emitter Voltage		V _{CES}	1000	V
Gate-Emitter Voltage		V _{GES}	±20	V
Collector Current	DC	I _C	8	A
	lms	I _{CP}	16	
Forward Current	DC	I _F	8	A
	lms	I _{FM}	16	
Collector Power Dissipation		P _C	80	W
Junction Temperature		T _j	150	°C
Storage Temperature Range		T _{stg}	-40~125	°C
Isolation Voltage		V _{Isol}	2500 (AC 1 min.)	V
Screw Torque		-	30	kg·cm

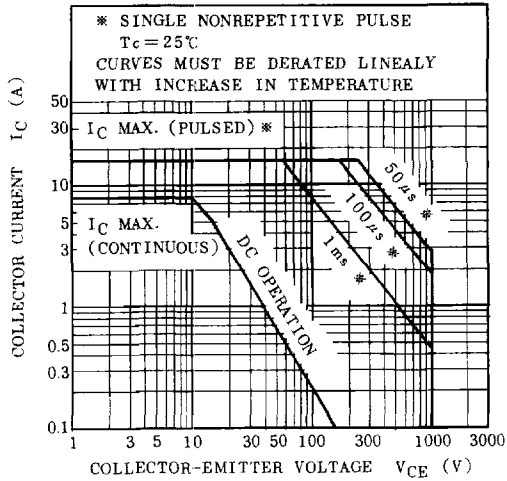
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		I _{GES}	V _{GE} =±20V, V _{CE} =0	-	-	±500	nA
Collector Cut-off Current		I _{CES}	V _{CE} =1000V, V _{GE} =0	-	-	1.0	mA
Collector-Emitter Breakdown Voltage		V _{(BR)CES}	I _C =2mA, V _{GE} =0	1000	-	-	V
Gate-Emitter Turn-on Voltage		V _{GE(th)}	I _C =8A, V _{CE} =10V	3.0	-	6.0	V
Collector-Emitter Saturation Voltage		V _{CE(sat)}	I _C =8A, V _{GE} =15V	-	3.0	5.0	V
Input Capacitance		C _{ies}	V _{CE} =10V, V _{GE} =0, f=1MHz	-	800	-	pF
Switching Time	Rise Time	t _r		-	0.25	0.8	μs
	Turn-on Time	t _{on}		-	0.35	1.0	
	Fall Time	t _f		-	0.5	1.0	
	Turn-off Time	t _{off}		-	0.85	1.4	
Forward Voltage		V _F	I _F =8A, V _{GE} =0	-	1.6	2.5	V
Reverse Recovery Time		t _{rr}	I _F =8A, V _{GE} =-10V di/dt=100A/μs	-	0.2	0.5	μs
Thermal Resistance		R _{th(j-c)}	Transistor	-	-	1.56	°C/W
			Diode	-	-	1.8	





SAFE OPERATING AREA



REVERSE BIAS SOA

