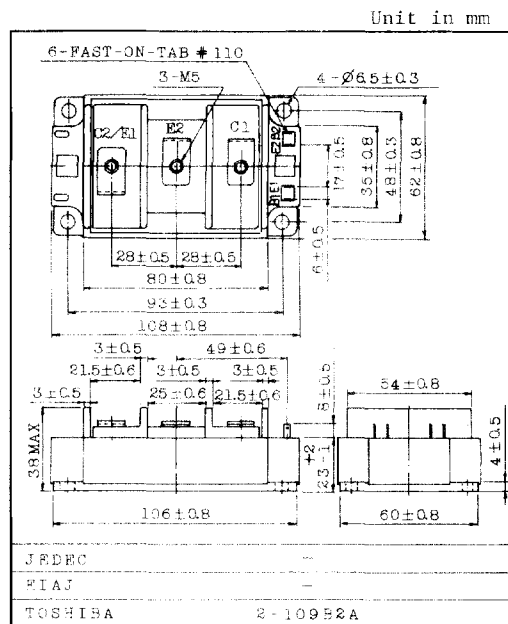
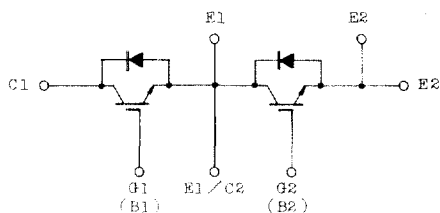


HIGH POWER SWITCHING APPLICATIONS.  
MOTOR CONTROL APPLICATIONS.

- High Input Impedance
- High Speed :  $t_f=1.0\mu s(\text{Max.})$   
 $t_{rr}=0.5\mu s(\text{Max.})$
- Low Saturation Voltage:  $V_{CE(sat)}=5.0V(\text{Max.})$
- Enhancement-Mode
- Includes a Complete Half Bridge in One Package.
- The Electrodes are Isolated from Case.

### EQUIVALENT CIRCUIT



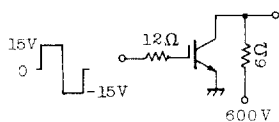
Weight : 470g

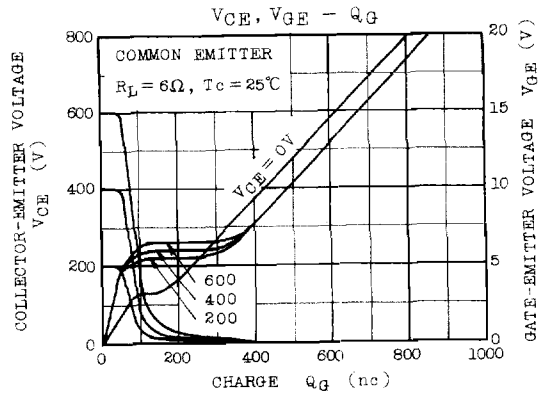
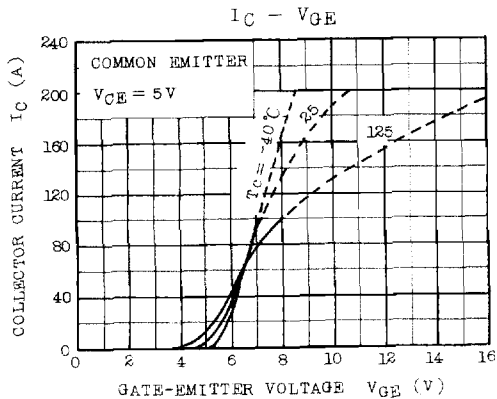
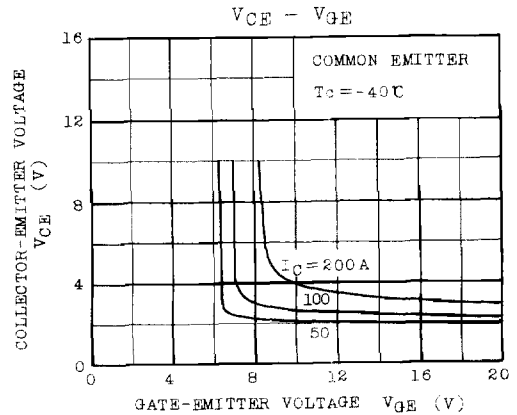
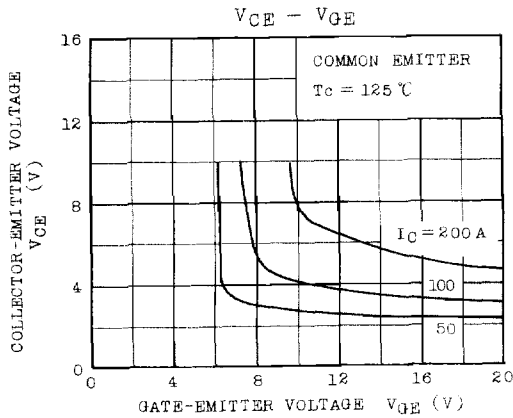
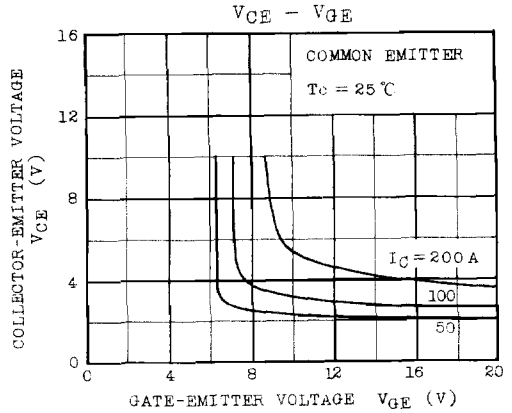
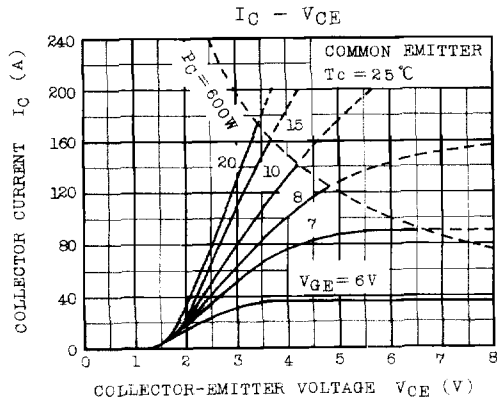
### MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Emitter Voltage		$V_{CES}$	1000	V
Gate-Emitter Voltage		$V_{GES}$	±20	V
Collector Current	DC	$I_C$	100	A
	1ms	$I_{CP}$	200	
Forward Current	DC	$I_F$	100	A
	1ms	$I_{FM}$	200	
Collector Power Dissipation (Tc=25°C)		$P_C$	600	W
Junction Temperature		$T_j$	150	°C
Storage Temperature Range		$T_{stg}$	-40~125	°C
Isolation Voltage		$V_{isol}$	2500 (AC 1 Minute)	V
Screw Torque (Terminal/Mounting)		-	30/30	kg·cm

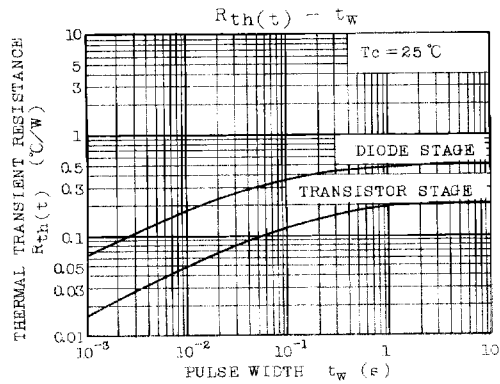
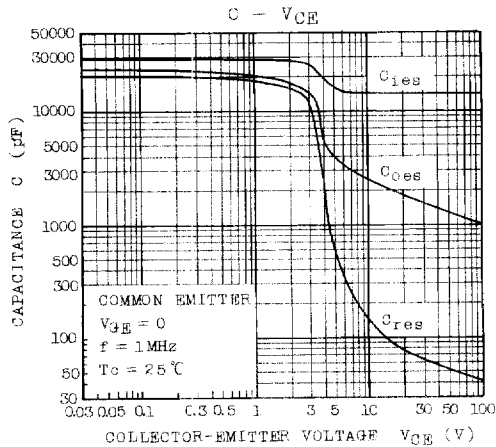
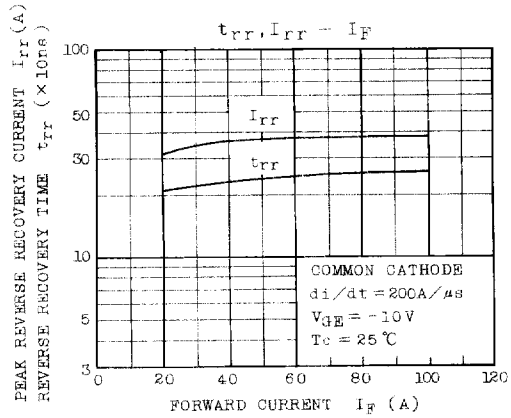
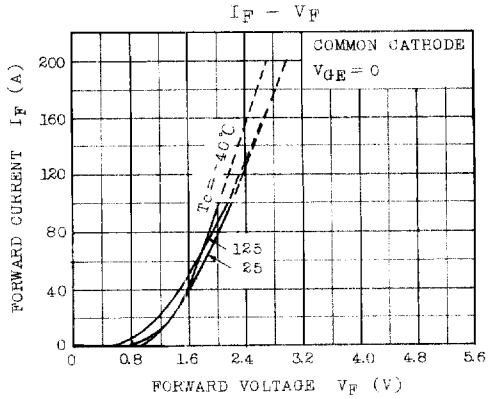
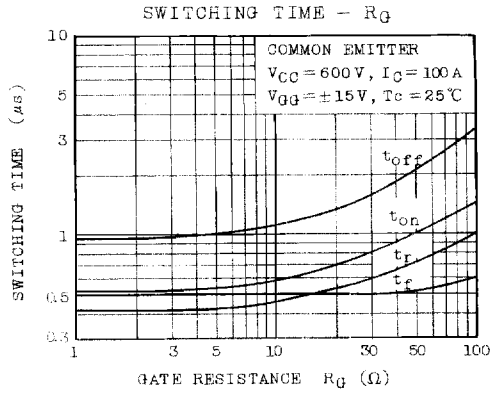
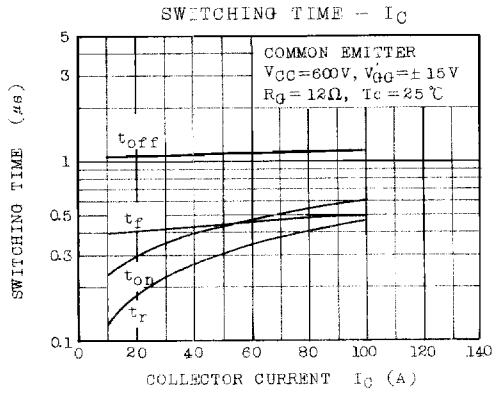
# MG100N2YS1

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

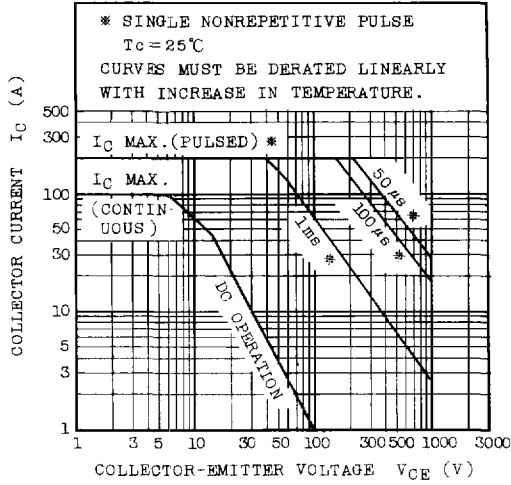
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		IGES	VGE=±20V, VCE=0	-	-	±500	nA
Collector Cut-off Current		ICES	VCE=1000V, VGE=0	-	-	2.0	mA
Collector-Emitter Breakdown Voltage		V(BR)CES	IC=2mA, VGE=0	1000	-	-	V
Gate-Emitter Cut-off Voltage		VGE(OFF)	IC=100mA, VCE=5V	3.0	-	6.0	V
Collector-Emitter Saturation Voltage		VCE(sat)	IC=100A, VGE=15V	-	3.0	5.0	V
Input Capacitance		Cies	VCE=10V, VGE=0, f=1MHz	-	15000	-	pF
Switching Time	Rise Time	tr		-	0.5	1.0	μs
	Turn-on Time	ton		-	0.6	1.0	
	Fall Time	tf		-	0.5	1.0	
	Turn-off Time	toff		-	1.2	2.0	
Forward Voltage		VF	IF=100A, VGE=0	-	2.2	3.0	V
Reverse Recovery Time		trr	IF=100A, VGE=-10V di/dt=200A/μs	-	0.25	0.5	μs
Thermal Resistance		Rth(j-c)	Transistor	-	-	0.208	°C/W
			Diode	-	-	0.5	



# MG100N2YS1



SAFE OPERATING AREA



REVERSE BIAS SOA

