

9097250 TOSHIBA (DISCRETE/OPTO)

90D 16226 DT-33-35

TOSHIBA SEMICONDUCTOR

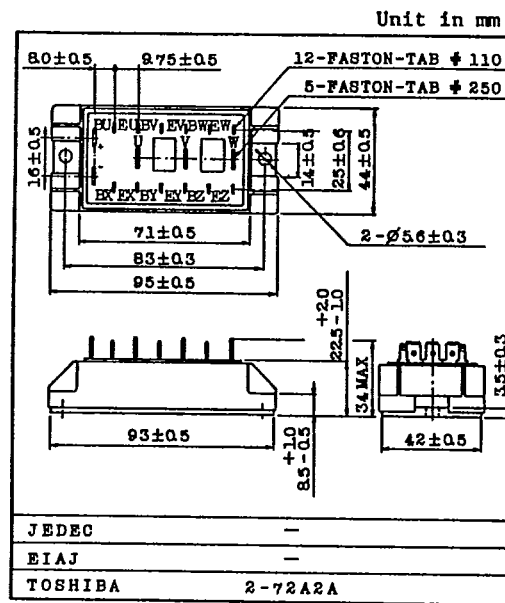
TECHNICAL DATA

TOSHIBA GTR MODULE
MG30G6EL2
SILICON NPN TRIPLE DIFFUSED TYPE

HIGH POWER SWITCHING APPLICATIONS.
MOTOR CONTROL APPLICATIONS.

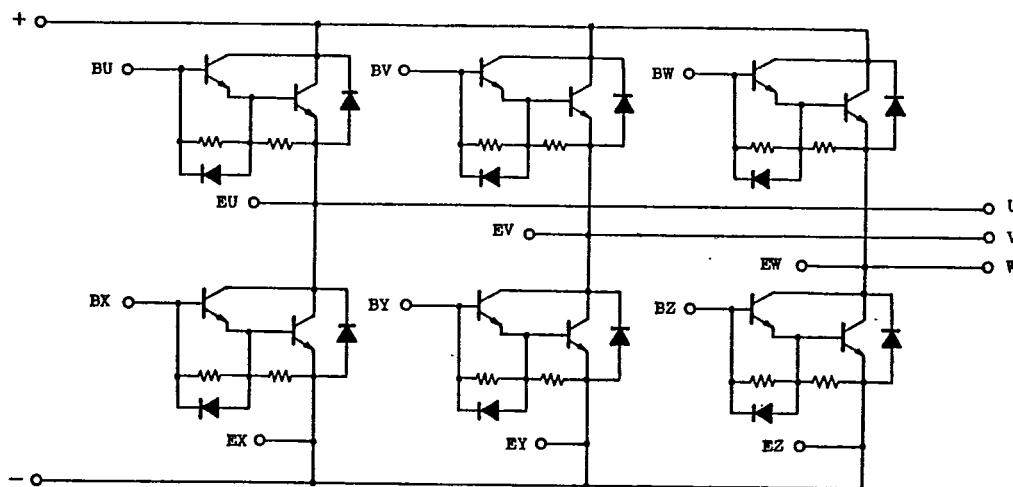
FEATURES:

- The Collector is Isolation from Case.
- 6 Power Transistors and 6 Free Wheeling Diodes are Built Into 1 Package.
- High DC Current Gain : $h_{FE}=100(\text{Min.})$ ($I_C=30A$)
- Low Saturation Voltage
: $V_{CE(sat)}=2.0V(\text{Max.})$ ($I_C=30A$)
- High Speed : $t_f=3\mu s(\text{Max.})$ ($I_C=30A$)



Weight : 240g

EQUIVALENT CIRCUIT



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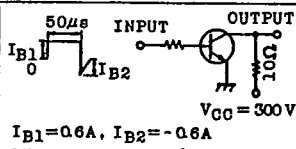
TECHNICAL DATA

MG30G6EL2

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		VCBO	600	V
Collector-Emitter Sustaining Voltage		VCEX(SUS)	600	V
		VCEO(SUS)	450	
Emitter-Base Voltage		VEBO	6	V
Collector Current	DC	IC	30	A
	1ms	ICP	60	
Forward Current	DC	IF	30	A
	1ms	IFM	60	
Base Current		IB	2	A
Collector Power Dissipation (Tc=25°C)		PC	200	W
Junction Temperature		Tj	150	°C
Storage Temperature Range		Tstg	-40~125	°C
Isolation Voltage		VIsol	2500 (AC 1 Minute)	V
Screw Torque			30	kg·cm

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		ICBO	VCB=600V, IE=0	-	-	1.0	mA
Emitter Cut-off Current		IEBO	VEB=6V, IC=0	-	-	200	mA
Collector-Emitter Sustaining Voltage		VCEO(SUS)	IC=0.5A, L=40mH	450	-	-	V
DC Current Gain		hFE	VCE=5V, IC=30A	100	-	-	
Collector-Emitter Saturation Voltage		VCE(sat)	IC=30A, IB=0.6A	-	-	2.0	V
Base-Emitter Saturation Voltage		VBE(sat)		-	-	2.5	V
Switching Time	Turn-on Time	ton	 50μs INPUT OUTPUT IB1 0 IB2 IC=30A VCE=300V DUTY CYCLE=0.5%	-	-	1.0	μs
	Storage Time	tstg		-	-	12	
	Fall Time	tf		-	-	3.0	
Forward Voltage		VF	IF=30A, IB=0	-	-	1.6	V
Reverse Recovery Time		trr	IF=30A, VBE=-2V di/dt=60A/μs	-	-	0.7	μs
Thermal Resistance	Rth(j-c)	Transistor		-	-	0.625	°C/W
		Diode		-	-	1.8	

EGA-MG30G6EL2-2

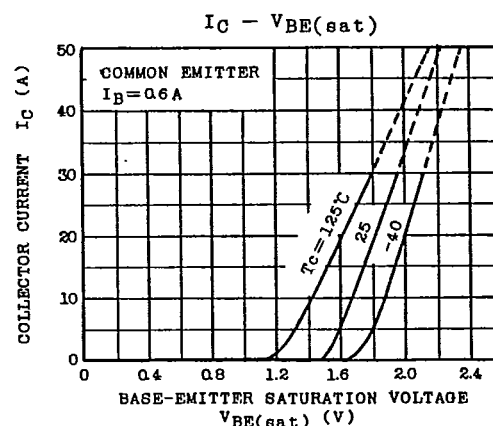
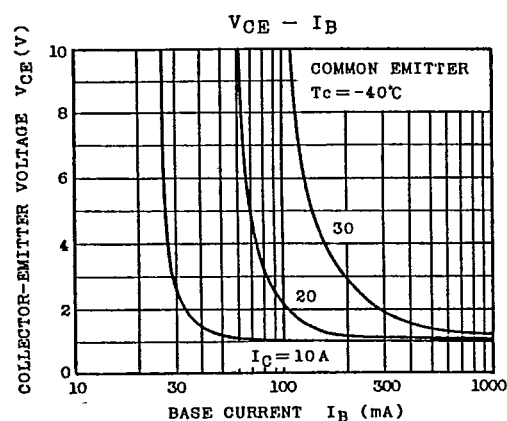
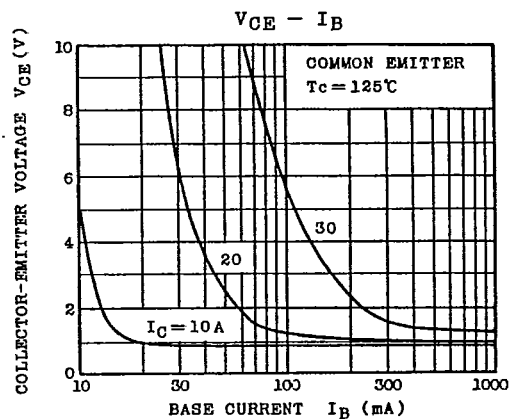
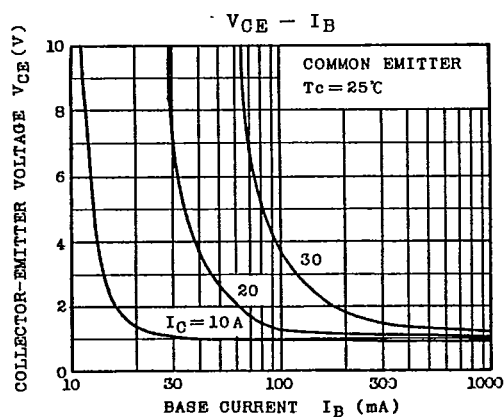
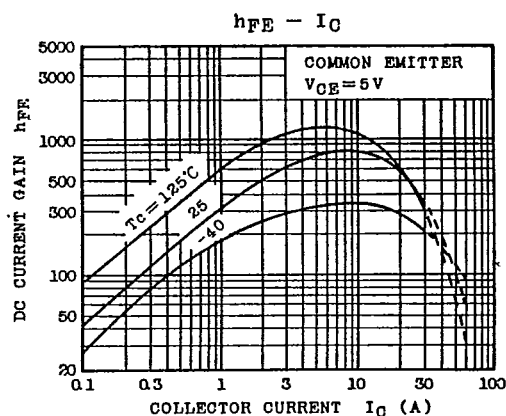
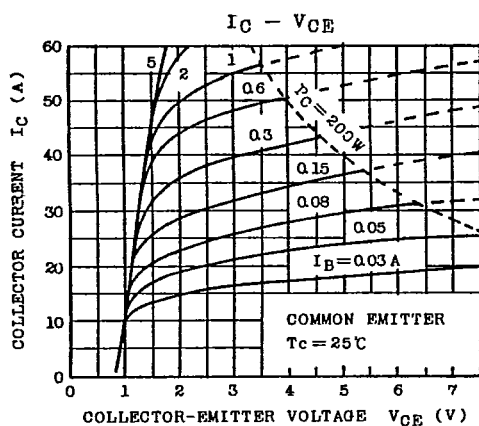
1986-4-10

TOSHIBA CORPORATION

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