

9097250 TOSHIBA (DISCRETE/OPTO)

90D 16226 DT-33-35

TOSHIBA SEMICONDUCTOR

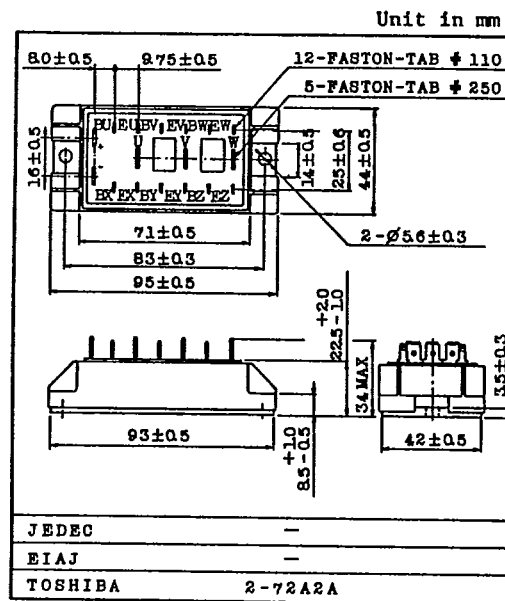
TECHNICAL DATA

TOSHIBA GTR MODULE
MG30G6EL2
SILICON NPN TRIPLE DIFFUSED TYPE

HIGH POWER SWITCHING APPLICATIONS.
MOTOR CONTROL APPLICATIONS.

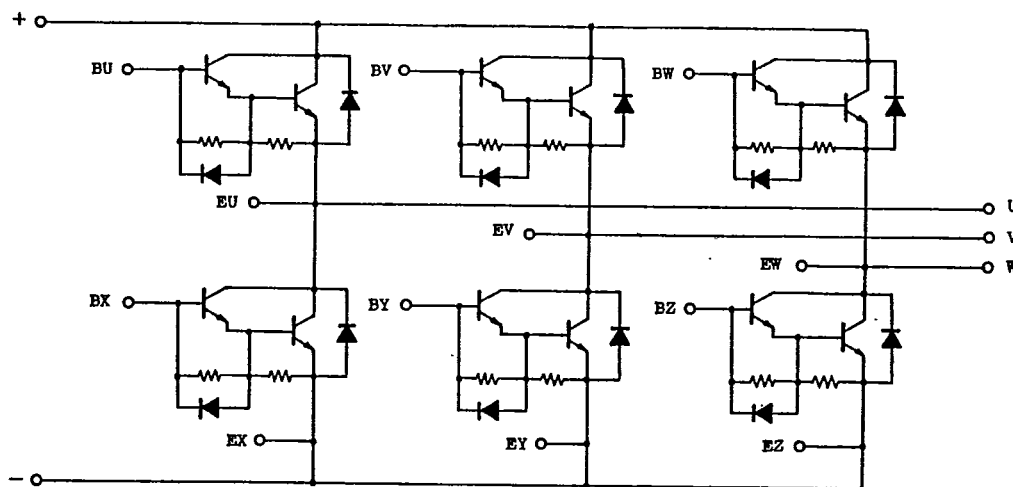
FEATURES:

- 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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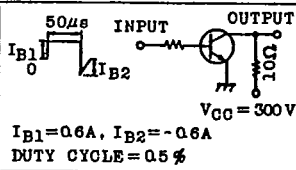
TOSHIBA SEMICONDUCTOR TECHNICAL DATA

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	V _{CB} =600V, I _E =0	-	-	1.0	mA
Emitter Cut-off Current		IEBO	V _{EB} =6V, I _C =0	-	-	200	mA
Collector-Emitter Sustaining Voltage		V _{CEO} (SUS)	I _C =0.5A, L=40mH	450	-	-	V
DC Current Gain		h _{FE}	V _{CE} =5V, I _C =30A	100	-	-	
Collector-Emitter Saturation Voltage		V _{CE} (sat)	I _C =30A, I _B =0.6A	-	-	2.0	V
Base-Emitter Saturation Voltage		V _{BE} (sat)		-	-	2.5	V
Switching Time	Turn-on Time	t _{on}	 50µs INPUT OUTPUT IB1 IB2 VCC=300V IB1=0.6A, IB2=-0.6A DUTY CYCLE=0.5%	-	-	1.0	µs
	Storage Time	t _{stg}		-	-	12	
	Fall Time	t _f		-	-	3.0	
Forward Voltage		V _F	I _F =30A, I _B =0	-	-	1.6	V
Reverse Recovery Time		t _{rr}	I _F =30A, V _{BE} =-2V di/dt=60A/µs	-	-	0.7	µs
Thermal Resistance	R _{th(j-c)}	Transistor		-	-	0.625	°C/W
		Diode		-	-	1.8	

EGA-MG30G6EL2-2

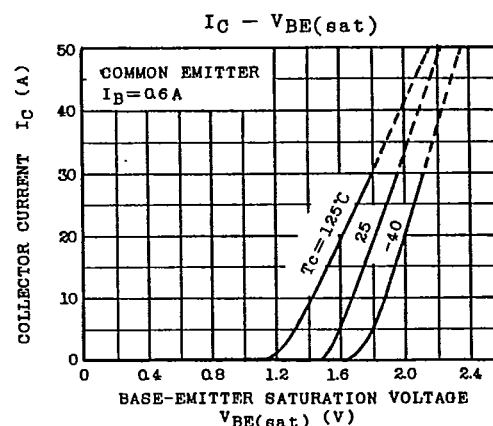
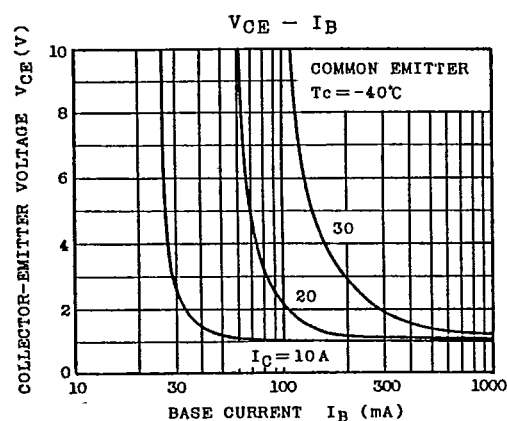
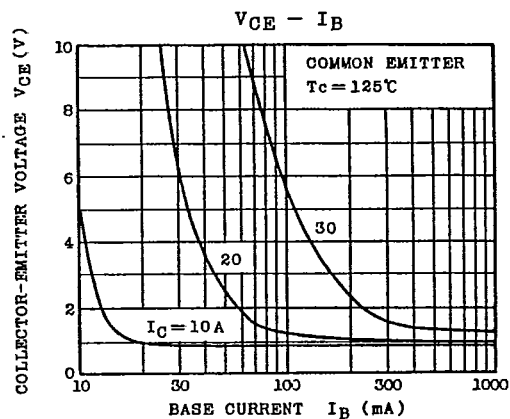
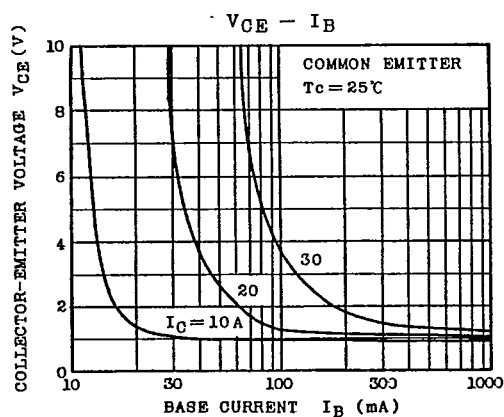
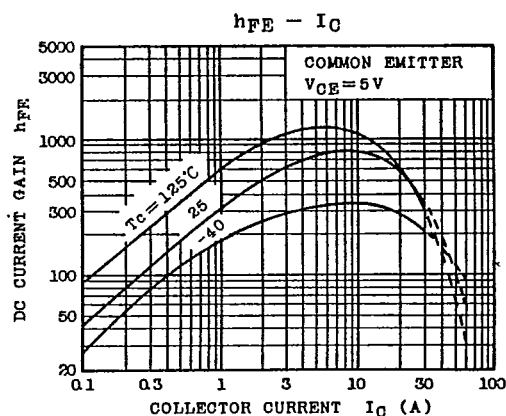
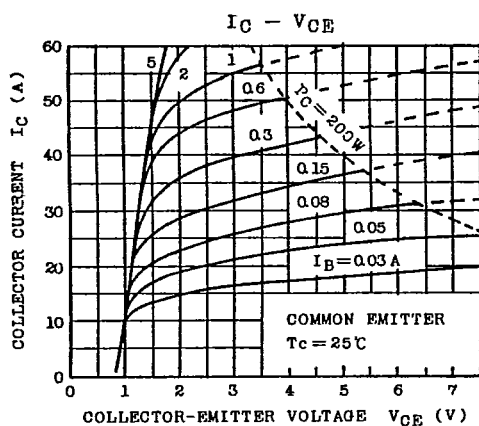
1986-4-10

TOSHIBA CORPORATION

TOSHIBA SEMICONDUCTOR

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