

9097250 TOSHIBA (DISCRETE/OPTO)

90D 16213 DT-33-35



SEMICONDUCTOR

TECHNICAL DATA

TOSHIBA GTR MODULE

MG20G4GL1 MG20G6EL1

SILICON NPN TRIPLE DIFF

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

HIGH POWER SWITCHING APPLICATIONS.
 MOTOR CONTROL APPLICATIONS.

FEATURES :

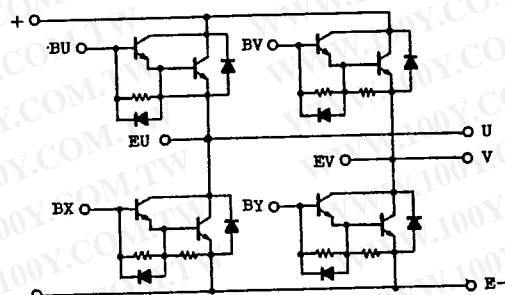
- The Collector is Isolated from Case
- 4 or 6 Darlington Transistors including Free Wheeling Diodes are Built-in to 1 package
- High DC Current Gain

$$: h_{FE}=100(\text{Min.}) (I_C=20A)$$

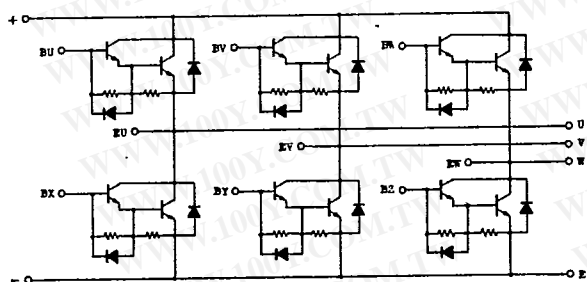
- Low Saturation Voltage

$$: V_{CE(\text{sat})}=2V(\text{Max.}) (I_C=20A)$$

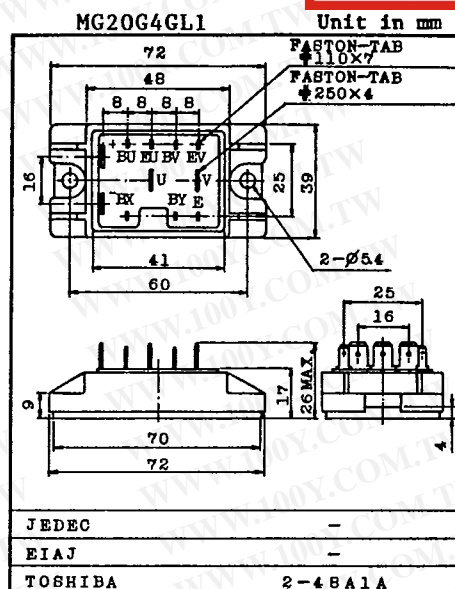
EQUIVALENT CIRCUIT



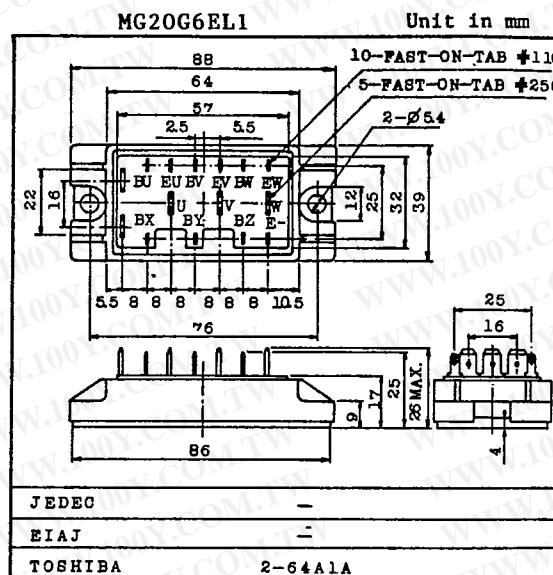
MG20G4GL1



MG20G6EL1



Weight : 140g



Weight : 180g

TOSHIBA CORPORATION

GT1A2A

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M G 2 0 G 4 G L 1

M G 2 0 G 6 E L 1

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	600	V
Collector-Emitter Sustaining Voltage		$V_{CEX(SUS)}$	600	V
Collector-Emitter Sustaining Voltage		$V_{CEO(SUS)}$	450	V
Emitter-Base Voltage		V_{EB0}	6	V
Collector Current	DC	I_C	20	A
	1ms	I_{CP}	40	A
Forward Current	DC	I_F	20	A
	1ms	I_{FM}	40	A
Base Current		I_B	2	A
Collector Power Dissipation ($T_c=25^\circ\text{C}$)		P_C	125	W
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-40 ~ 125	$^\circ\text{C}$
Isolation Voltage		V_{Isol}	2500 (AC 1 Minute)	V
Screw Torque		-	30	kg·cm

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=600\text{V}, I_E=0$	-	-	1.0	mA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=6\text{V}, I_C=0$	-	-	100	mA
Collector-Emitter Sustaining Voltage		$V_{CEO(SUS)}$	$I_C=0.5\text{A}, L=40\text{mH}$	450	-	-	V
DC Current Gain		h_{FE}	$V_{CE}=5\text{V}, I_C=20\text{A}$	100	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=20\text{A}, I_B=0.5\text{A}$	-	-	2.0	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$		-	-	2.5	V
Switching Time	Turn-on Time	t_{on}		-	-	1.0	μs
	Storage Time	t_{stg}		-	-	12	
	Fall Time	t_f		-	-	2.0	
Forward Voltage		V_F	$I_F=20\text{A}, I_B=0$	-	-	1.6	V
Reverse Recovery Time		t_{rr}	$I_F=20\text{A}, V_{BE}=-2\text{V}$ $di/dt=60\text{A}/\mu\text{s}$	-	-	0.7	μs
Thermal Resistance		$R_{th(j-c)}$		-	-	1.0	$^\circ\text{C}/\text{W}$

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9097250 TOSHIBA (DISCRETE/OPTO)

90D 16215 DT-33-35

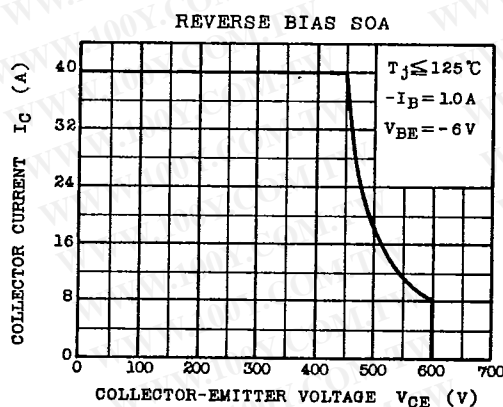
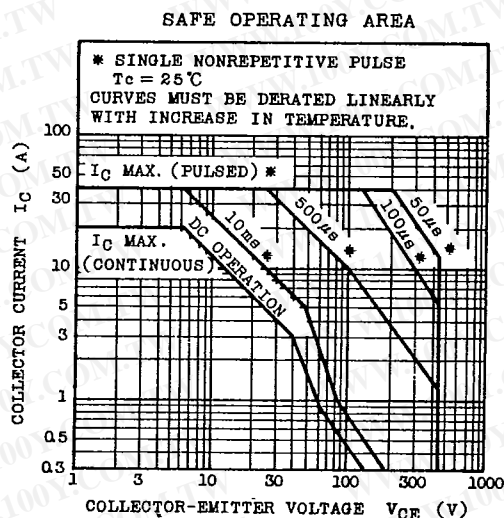
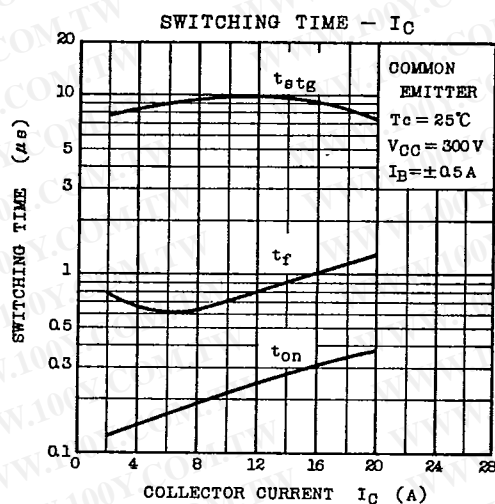
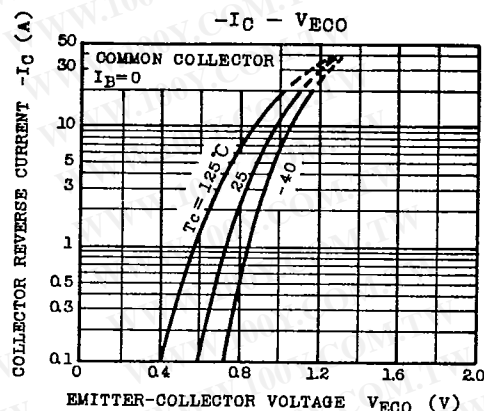
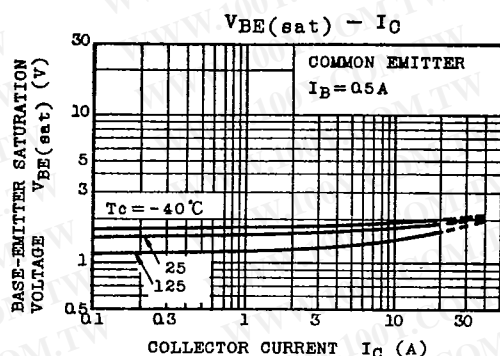


SEMICONDUCTOR

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M G 2 0 G 6 E L 1



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9097250 TOSHIBA (DISCRETE/OPTO)

90D 16216

DT-33-35

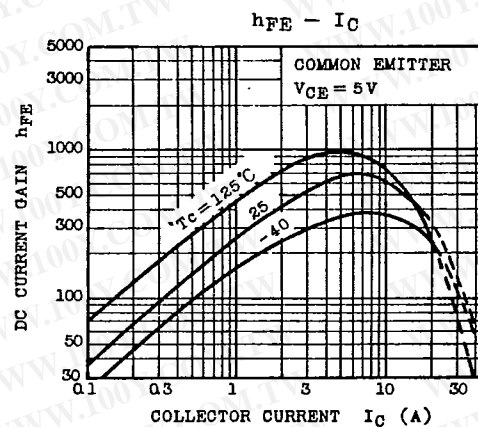
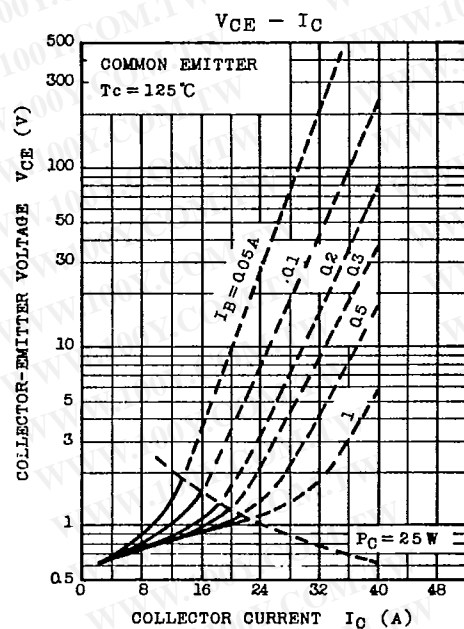
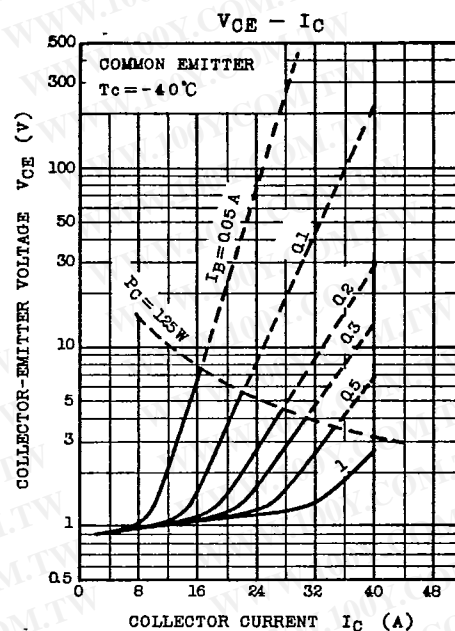
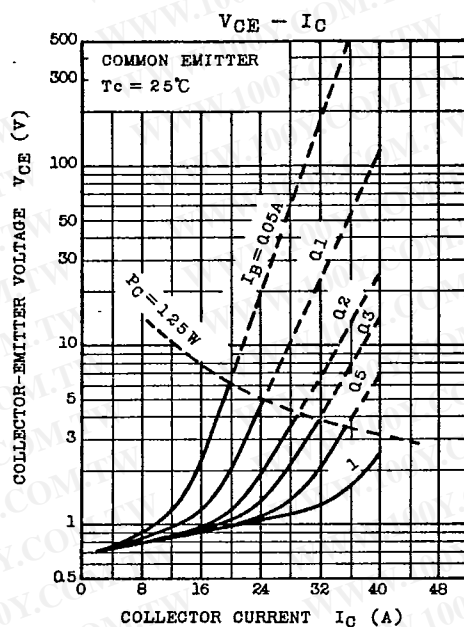


SEMICONDUCTOR

TECHNICAL DATA

M G 2 0 G 4 G L 1

M G 2 0 G 6 E L 1



TOSHIBA CORPORATION

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9097250 TOSHIBA (DISCRETE/OPTO)

90D 16217

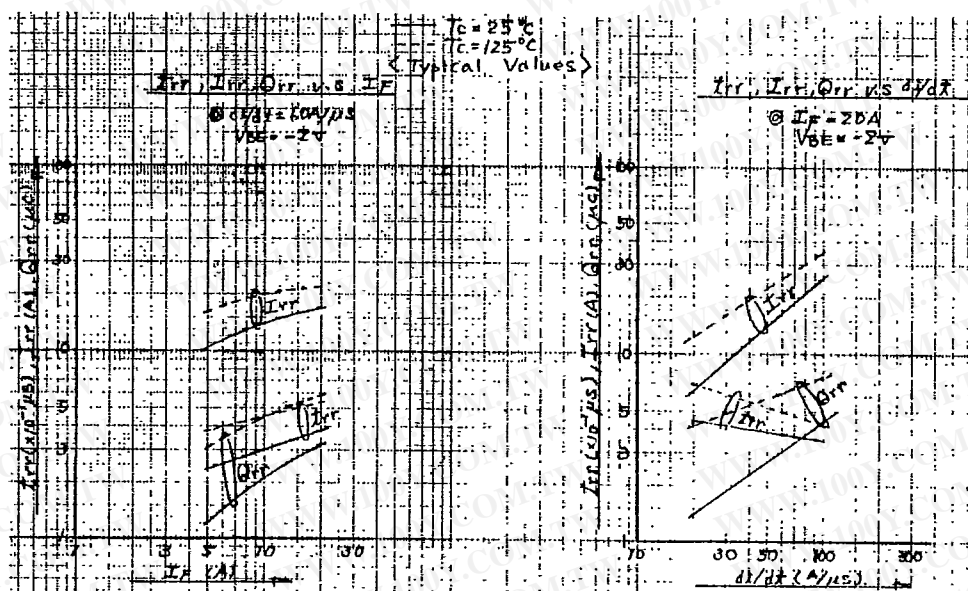
DT-33-35



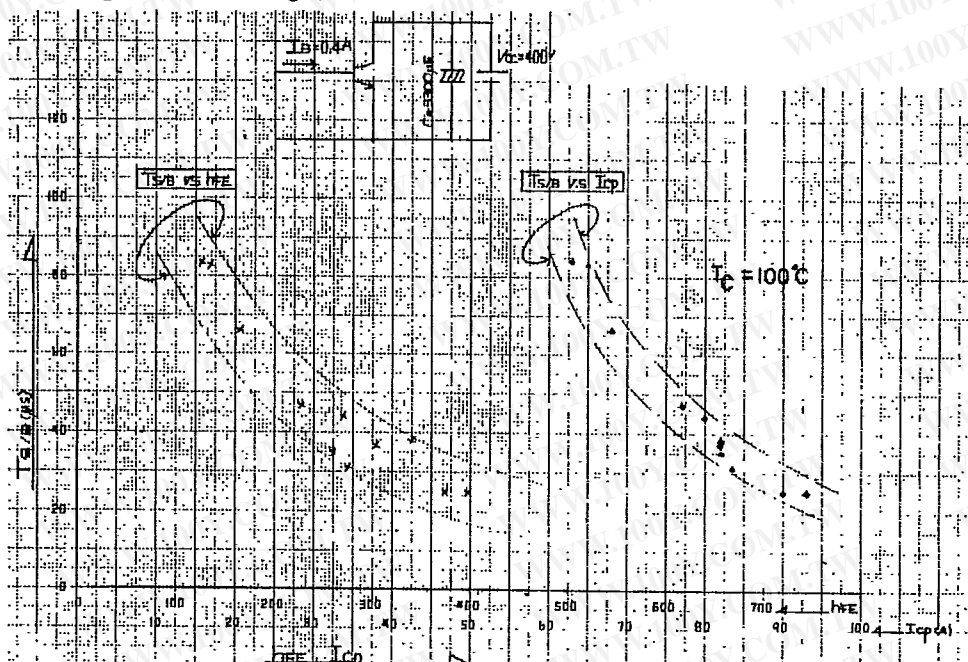
SEMICONDUCTOR

TECHNICAL DATA

MG20G4GLI
MG20G6ELI



SHORT CIRCUIT



TOSHIBA CORPORATION

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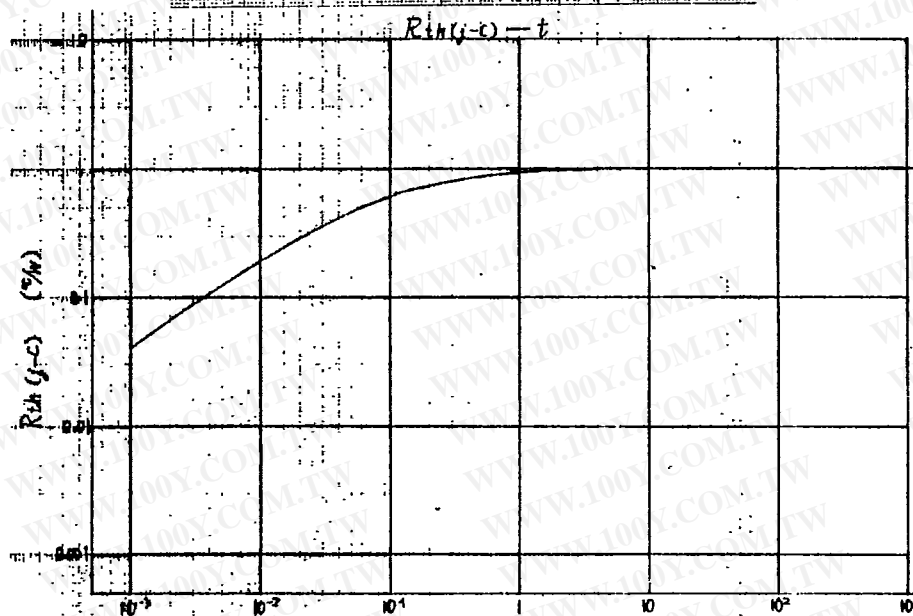
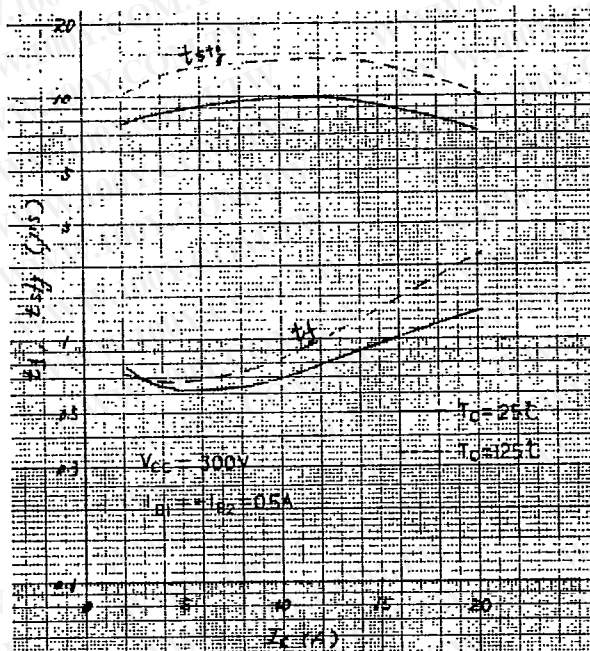


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Datasheets for electronic components.