

9097250 TOSHIBA (DISCRETE/OPTO)

56C 08214 D T-35-29

MG50G1BL2

SILICON NPN TRIPLE DIFFUSED TYPE
(DARLINGTON POWER MODULE)

HIGH POWER SWITCHING APPLICATIONS.

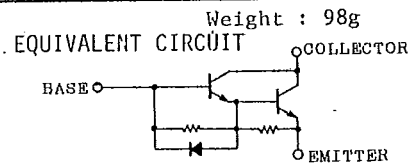
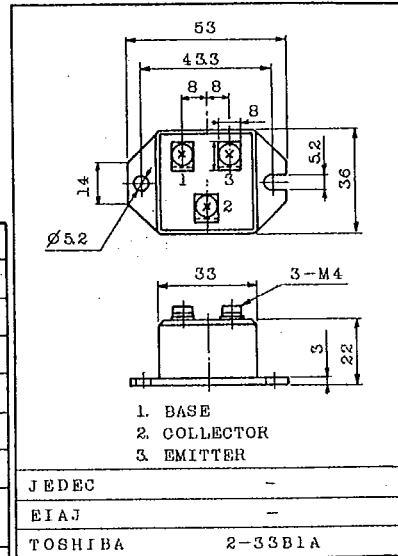
Unit in mm

FEATURES:

- The Collector is Isolated from Ground.
- High DC Current Gain : $h_{FE}=100(\text{Min.}) (I_C=50A)$
- Low Saturation Voltage : $V_{CE(sat)}=2V(\text{Max.}) (I_C=50A)$
- High Speed : $t_f=2\mu s(\text{Max.}) (I_C=50A)$

MAXIMUM RATINGS ($T_c=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	600	V
Collector-Emitter Voltage	$V_{CEO(SUS)}$	450	V
Emitter-Base Voltage	V_{EB0}	6	V
Collector Current	DC	I_C	50 A
	Pulse	I_{CP}	100 A
Base Current	I_B	3	A
Collector Power Dissipation ($T_c=25^\circ C$)	P_C	300	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-40 ~ 125	$^\circ C$
Isolation Voltage	V_{Isol}	2000 (AC 1 Minute)	V
Screw Torque		20	kg·cm



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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=600V, I_E=0$	-	-	1.0	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=6V, I_C=0$	-	-	200	mA
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C=0.5A, L=40mH$	450	-	-	V
DC Current Gain	h_{FE}	$V_{CE}=5V, I_C=50A$	100	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=50A, I_B=1A$	-	-	2.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-	-	2.5	V
Collector Output Capacitance	C_{ob}	$V_{CB}=50V, I_E=0, f=1MHz$	-	450	-	pF
Switching Time	Turn-on Time	t_{on}			1.0	μs
	Storage Time	t_{stg}			12	
	Fall Time	t_f			2.0	
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	0.41	$^\circ C/W$

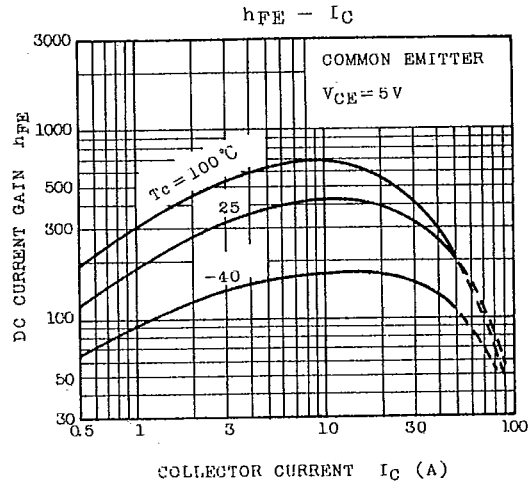
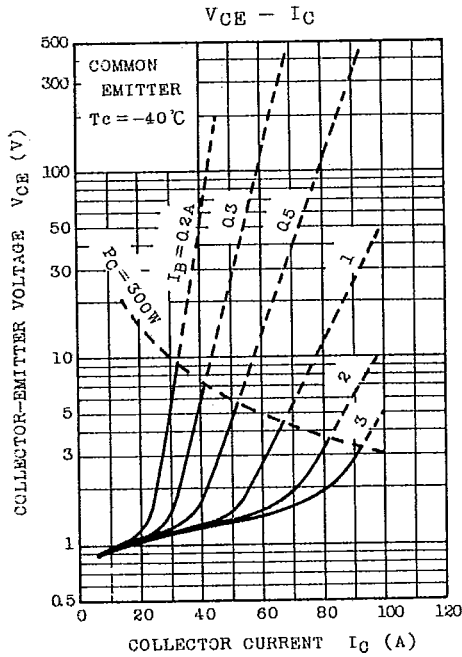
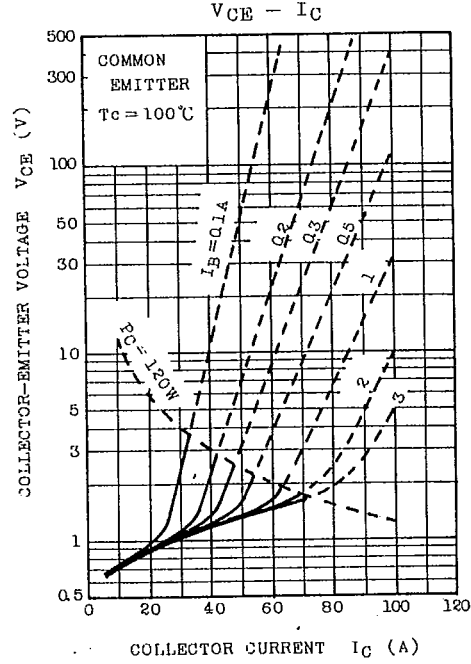
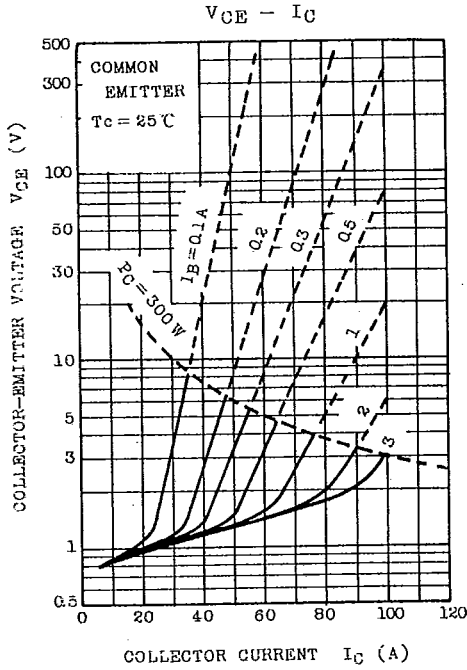
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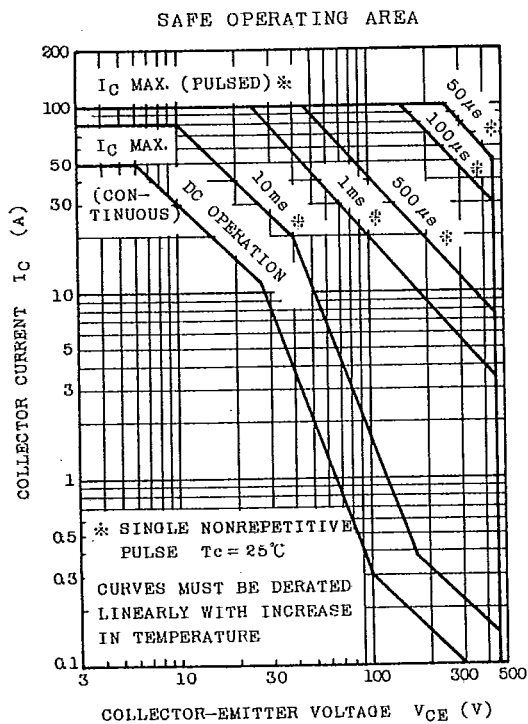
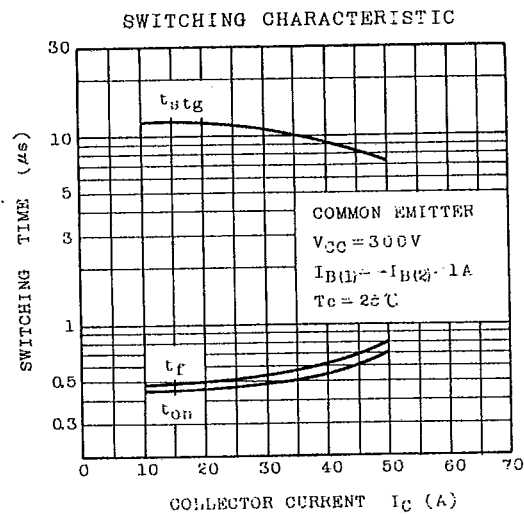
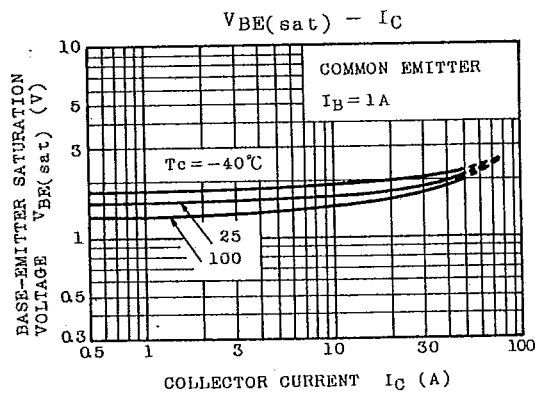
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