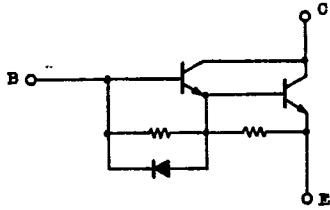




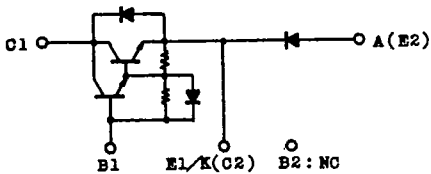
SEMICONDUCTOR
TECHNICAL DATA

1

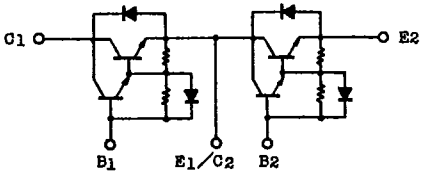
- MG50G1BL3
- MG50G1JL1
- MG50G2CL3
- MG50G2DL1
- MG50G6EL1



MG50G1BL3

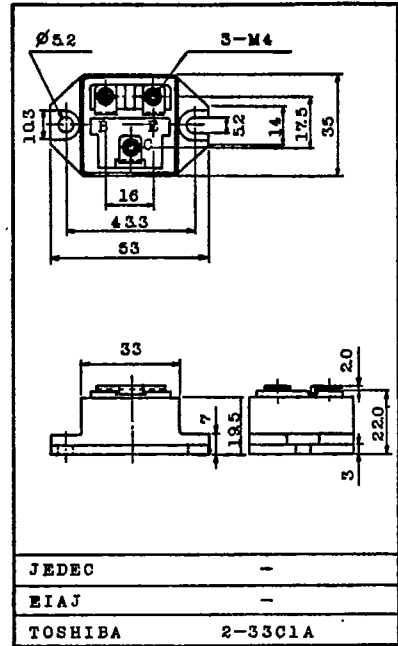


MG50G1JL1

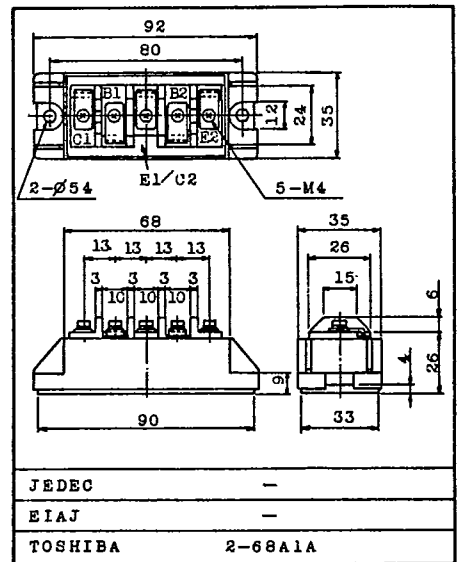


MG50G2CL3

Unit in mm



Weight : 86g



Weight : 210g



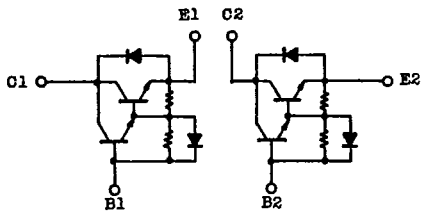
SEMICONDUCTOR

TECHNICAL DATA

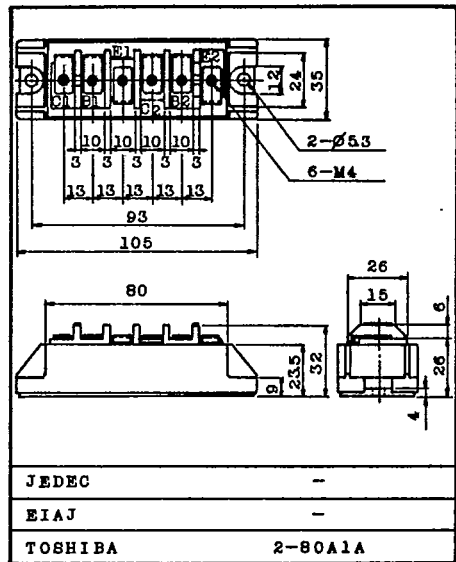
2

MG 50 G 1 B L 3
 MG 50 G 1 J L 1
 MG 50 G 2 C L 3
 MG 50 G 2 D L 1
 MG 50 G 6 E L 1

MG 50 G 2 D L 1

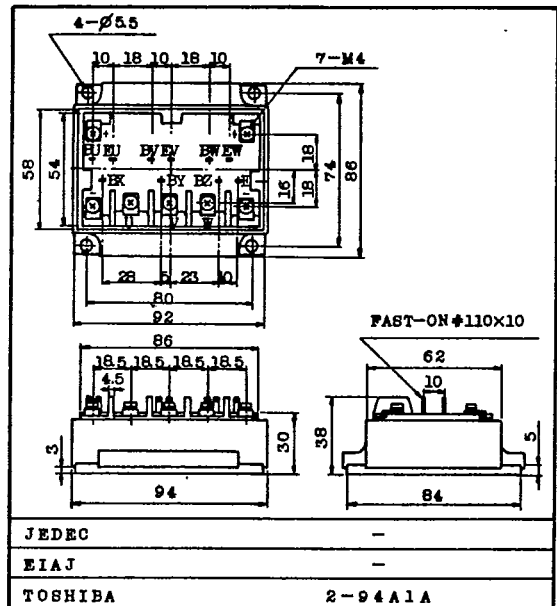
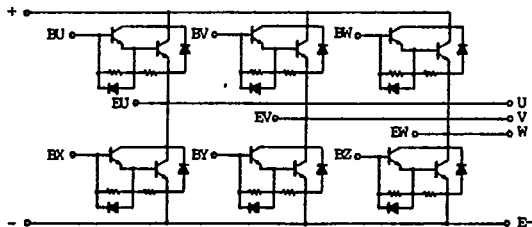


Unit in mm



Weight : 245g

MG 50 G 6 E L 1



Weight : 600g



SEMICONDUCTOR

TECHNICAL DATA

3

 MG50G1BL3
 MG50G1JL1
 MG50G2CL3
 MG50G2DL1
 MG50G6EL1
MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	600	V
Collector-Emitter Voltage		V_{CE0}	600	V
Collector-Emitter Sustaining Voltage		$V_{CE0(SUS)}$	450	V
Emitter-Base Voltage		V_{EB0}	6	V
Collector Current	DC	I_C	50	A
	lms	I_C	100	A
	DC	$-I_C$	50	A
Base Current		I_B	3	A
Collector Power Dissipation ($T_c=25^\circ\text{C}$)		P_C	300	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 (Terminal/Mounting)			20/30	kg·cm

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

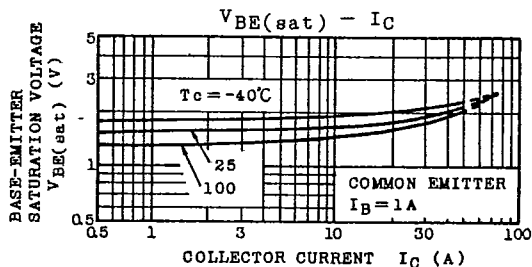
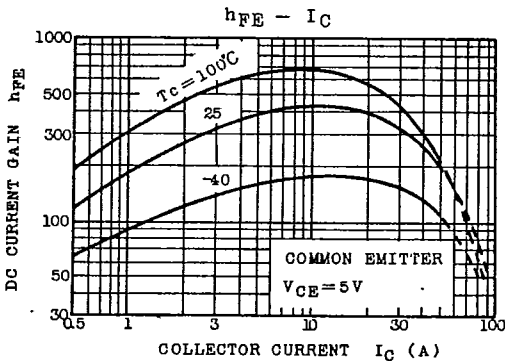
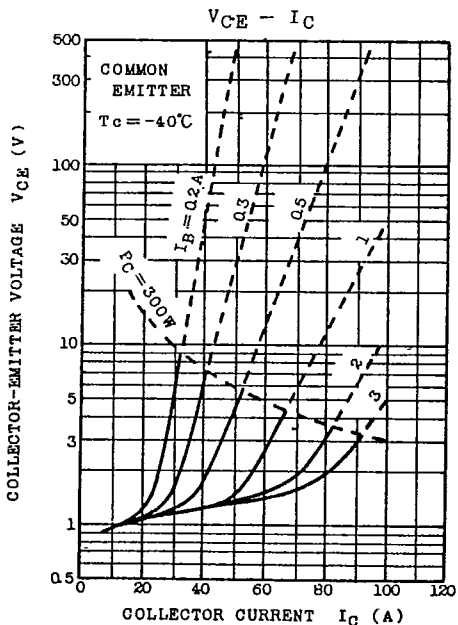
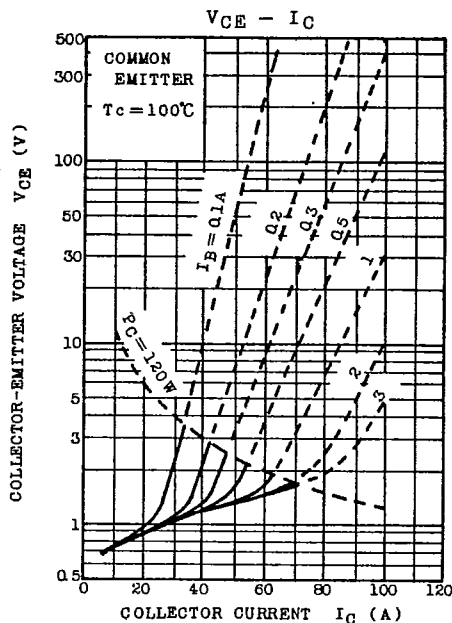
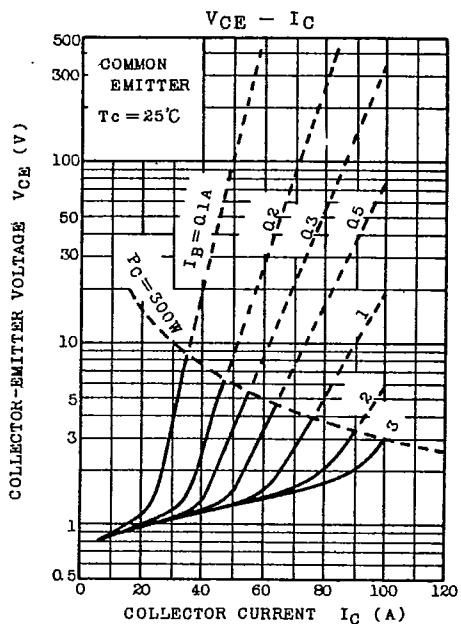
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CB0}	$V_{CB}=600\text{V}, I_E=0$	-	-	1.0	mA
Emitter Cut-off Current		I_{EB0}	$V_{EB}=6\text{V}, I_C=0$	-	-	200	mA
Collector-Emitter Sustaining Voltage		$V_{CE0(SUS)}$	$I_C=0.5\text{A}, L=40\text{mH}$	450	-	-	V
DC Current Gain		h_{FE}	$V_{CE}=5\text{V}, I_C=50\text{A}$	100	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=50\text{A}, I_B=1\text{A}$	-	-	2.0	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$		-	-	2.5	V
Emitter-Collector Voltage		V_{ECO}	$I_E=50\text{A}, I_B=0$	-	-	1.5	V
Reverse Recovery Time		t_{rr}	$-I_C=50\text{A}, V_{EB}=3\text{V}, V_{CE}=300\text{V}$	-	-	2.0	μs
Switching Time	Turn-on Time	t_{on}		-	-	1.0	μs
	Storage Time	t_{stg}		-	-	12	
	Fall Time	t_f		$I_{B1}=-I_{B2}=1\text{A}$ DUTY CYCLE=0.5%	-	-	
Thermal Resistance (Junction to Case)		$R_{th(j-c)}$	Transistor	-	-	0.41	$^\circ\text{C/W}$
			Diode	-	-	1.3	



SEMICONDUCTOR

TECHNICAL DATA

- MG 50 G 1 B L 3
- MG 50 G 1 J L 1
- MG 50 G 2 C L 3
- MG 50 G 2 D L 1
- MG 50 G 6 E L 1

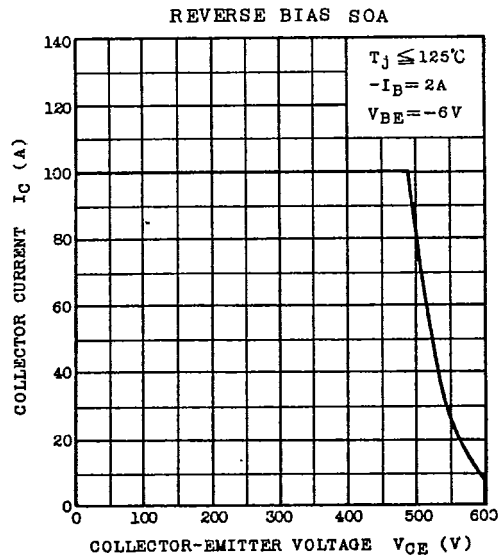
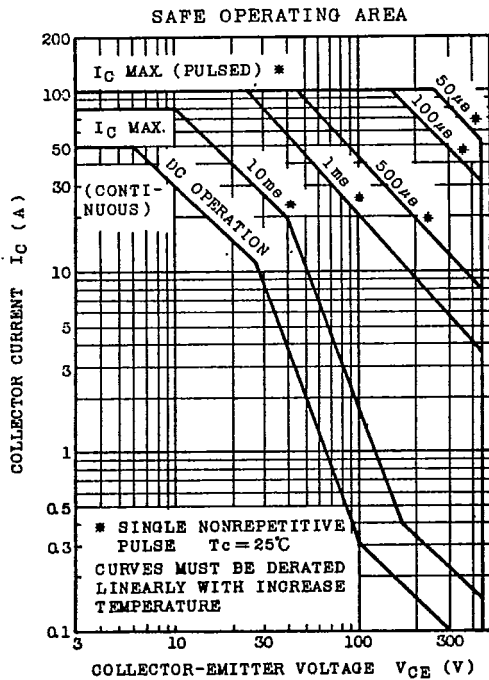
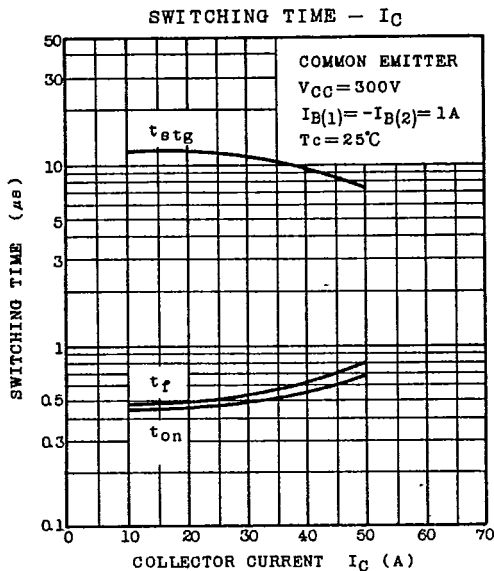
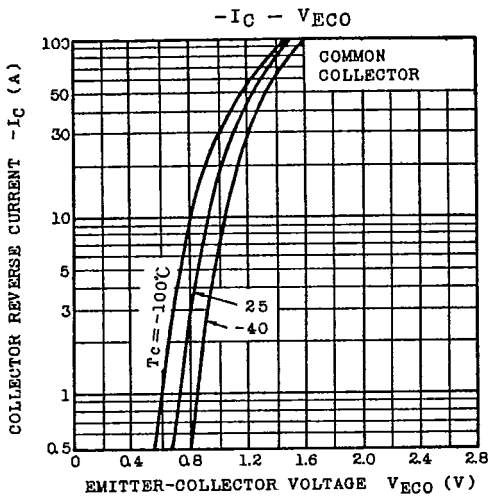




SEMICONDUCTOR

TECHNICAL DATA

- MG 50 G 1 B L 3
- MG 50 G 1 J L 1
- MG 50 G 2 C L 3
- MG 50 G 2 D L 1
- MG 50 G 6 E L 1



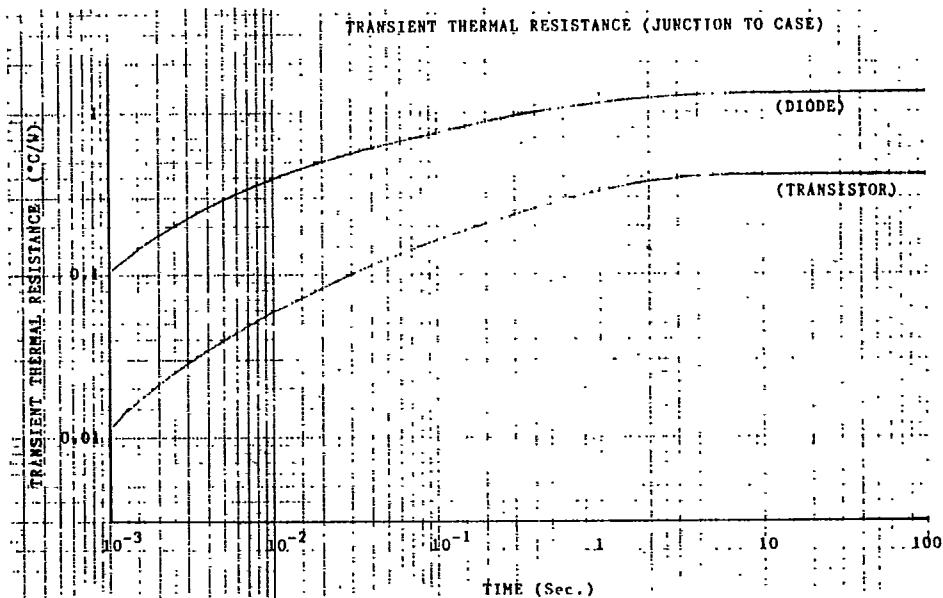
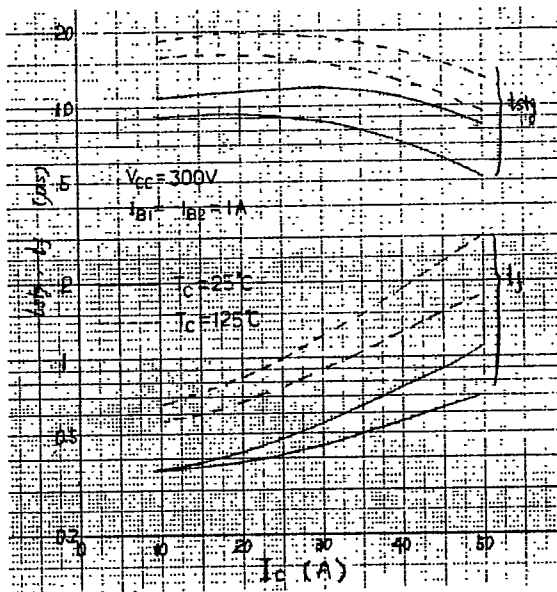


SEMICONDUCTOR

TECHNICAL DATA

6

MG50G1BL3
 MG50G1JL1
 MG50G2CL3
 MG50G2DL1
 MG50G6EL1



TOSHIBA CORPORATION



SEMICONDUCTOR
TECHNICAL DATA

7

- MG50G1BL3
- MG50G1JL1
- MG50G2CL3
- MG50G2DL1
- MG50G6EL1

