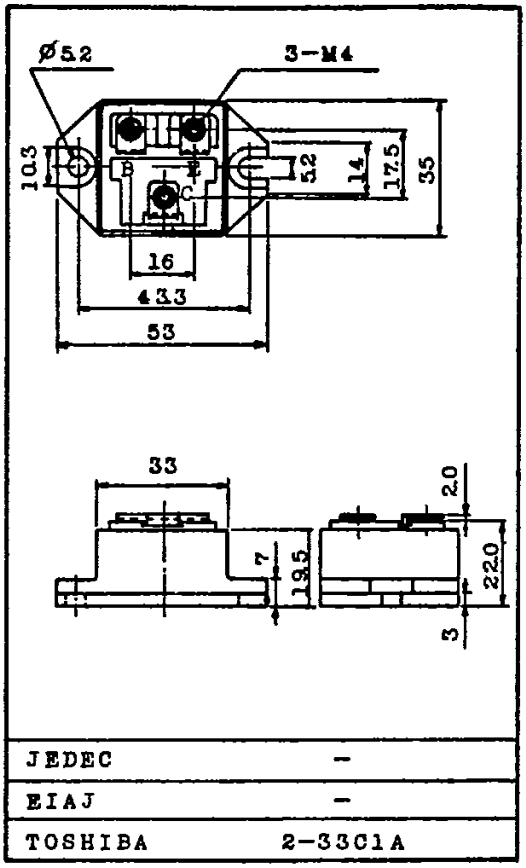
SEMICONDUCTOR
TECHNICAL DATA

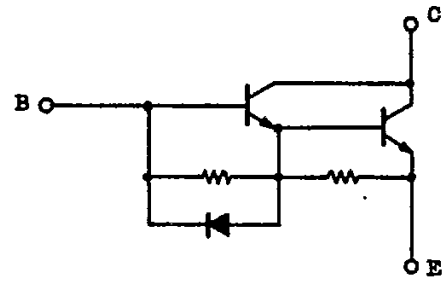
MG30G1BL3
MG30G1JL1
MG30G2CL3
MG30G6EL1

Unit in mm

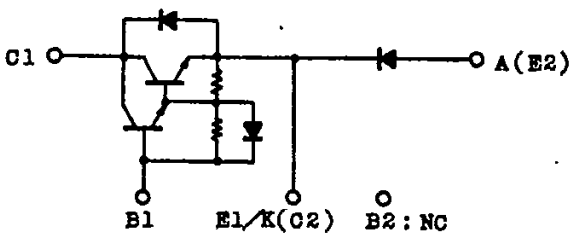


JEDEC	—
EIAJ	—
TOSHIBA	2-33C1A

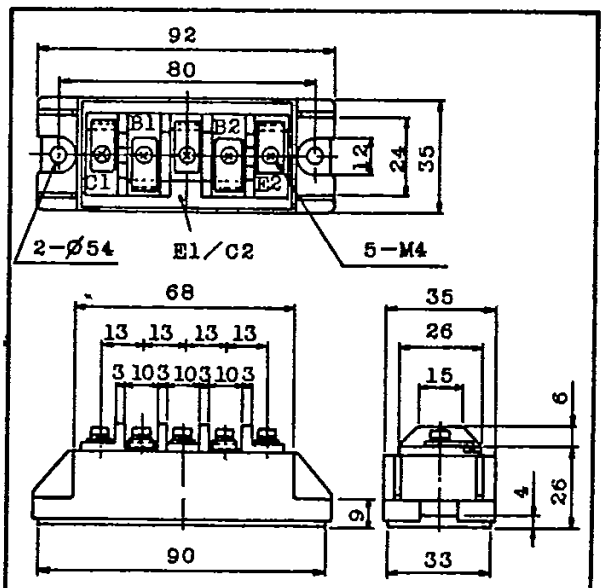
Weight : 86g



MG30G1BL3

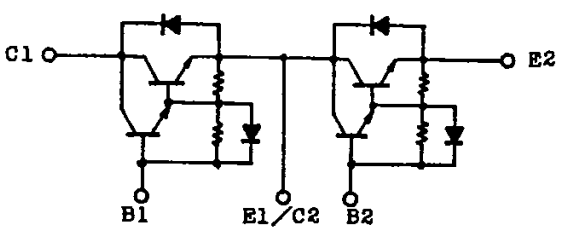


MG30G1JL1



JEDEC	—
EIAJ	—
TOSHIBA	2-68A1A

Weight : 210g



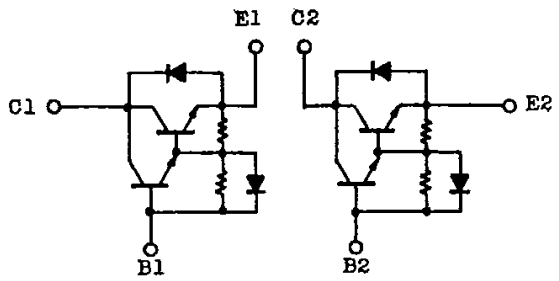
MG30G2CL3

SEMICONDUCTOR

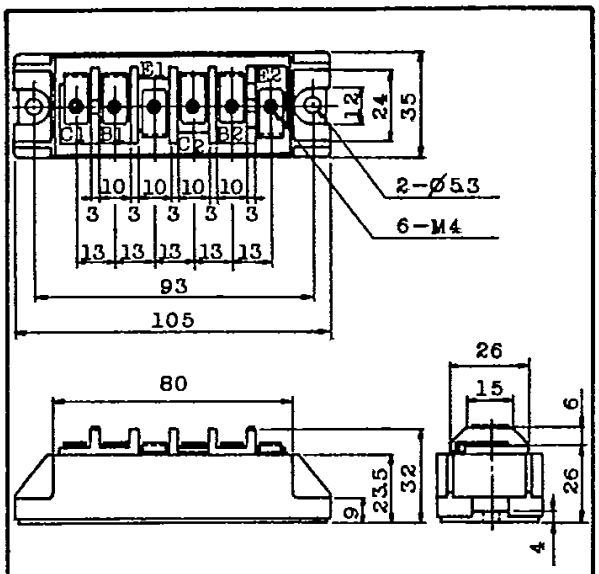
TECHNICAL DATA

MG30G1BL3
MG30G1JL1
MG30G2CL3
MG30G2DL1
MG30G6EL1

MG30G2DL1



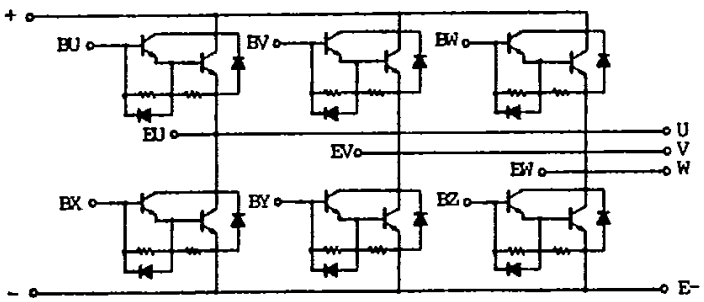
Unit in mm

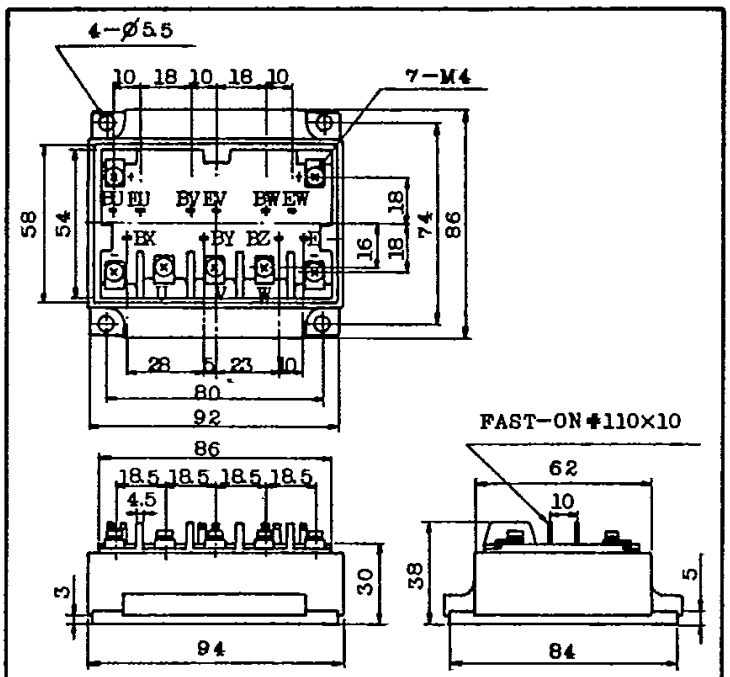


JEDEC	—
EIAJ	—
TOSHIBA	2-80A1A

Weight : 245g

MG30G6EL1





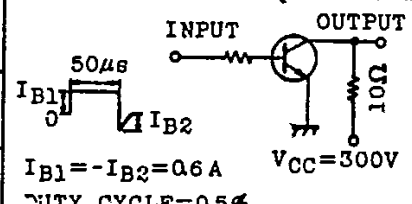
JEDEC	—
EIAJ	—
TOSHIBA	2-94A1A

Weight : 600g

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	600	V
Collector-Emitter Sustaining Voltage		$V_{CEX(SUS)}$	600	V
Collector-Emitter Sustaining Voltage		$V_{CEO(SUS)}$	450	V
Emitter-Base Voltage		V_{EBO}	6	V
Collector Current	DC	I_C	30	A
	1ms	I_{CP}	60	A
Forward Current	DC	I_F	30	A
	1ms	I_{FM}	60	A
Base Current		I_B	2	A
Collector Power Dissipation (Tc=25°C)		P_C	250	W
Junction Temperature		Tj	150	°C
Storage Temperature Range		T_{stg}	-40~125	°C
Isolation Voltage		V_{Isol}	2500 (AC 1 Minute)	V
Screw Torque (Terminal/Mounting)		-	20/30	kg·cm

ELECTRICAL CHARACTERISTICS (Ta=25°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=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}	 I_{B1}=-I_{B2}=0.6A DUTY CYCLE=0.5%	-	-	1.0	μs
	Storage Time	t_{stg}		-	-	12	
	Fall Time	t_f		-	-	2.0	
Forward Voltage		V_F	I_F=30A, I_B=0	-	-	1.5	V
Reverse Recovery Time		t_{rr}	I_F=30A, V_{BE}=-3V di/dt=100A/μs	-	-	2.0	μs
Thermal Resistance		$R_{th(j-c)}$	Transistor	-	-	0.5	°C/W
			Diode	-	-	1.8