

MG200H1AL2

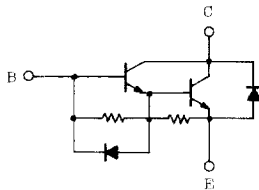
GTR MODULE
SILICON NPN TRIPLE DIFFUSED TYPE

HIGH POWER SWITCHING APPLICATIONS.
MOTOR CONTROL APPLICATIONS.

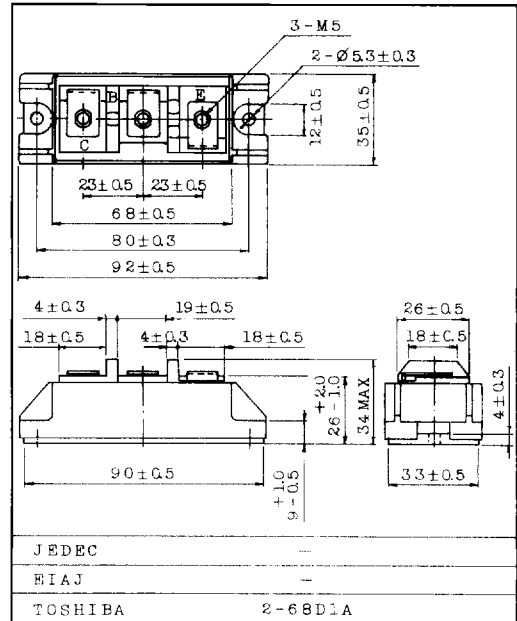
FEATURES:

- . The Collector is Isolated from Case.
- . With Built-in Free Wheeling Diode.
- . High DC Current Gain : $\beta_{FE}=80(\text{Min.})(I_C=200A)$
- . Low Saturation Voltage
: $V_{CE(sat)}=2V(\text{Max.})(I_C=200A)$
- . High Speed : $t_f=4\mu s(\text{Max.})(I_C=200A)$

EQUIVALENT CIRCUIT



Unit in mm



Weight: 210g

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	600	V
Collector-Emitter Sustaining Voltage	$V_{CEX(SUS)}$	600	V
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	550	V
Emitter-Base Voltage	V_{EB0}	6	V
Collector Current	DC	I_C	200
	1ms	I_{CP}	400
Forward Current	DC	I_F	200
	1ms	I_{FM}	400
Base Current	I_B	25	A
Collector Power Dissipation ($T_c=25^\circ C$)	P_C	800	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-40 ~ 125	$^\circ C$
Isolation Voltage	V_{Isol}	2500 (AC 1 Minute)	V
Screw Torque (Terminal/Mounting)	-	30/30	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	-	-	2.0	mA
Emitter Cut-off Current		I _{EBO}	V _{EB} =6V, I _C =0	-	-	400	mA
Collector-Emitter Sustaining Voltage		V _{CEO(SUS)}	I _C =0.5A, L=40mH	550	-	-	V
DC Current Gain		h _{FE}	V _{CE} =5V, I _C =200A	80	-	-	
Collector-Emitter Saturation Voltage		V _{CE(sat)}	I _C =200A, I _B =6A	-	-	2.0	V
Base-Emitter Saturation Voltage		V _{BE(sat)}		-	-	2.7	V
Switching Time	Turn-on Time	t _{on}	<p> INPUT OUTPUT 50µs $I_{B1} = -I_{B2} = 6A$ DUTY CYCLE = 0.5% $V_{CC} = 300V$ </p>	-	-	2.0	µs
	Storage Time	t _{stg}		-	-	12	
	Fall Time	t _f		-	-	4.0	
Forward Voltage		V _F	I _F =200A, I _B =0	-	-	1.5	V
Reverse Recovery Time		t _{rr}	I _F =200A, V _{BE} =-3V di/dt=100A/µs	-	-	2.0	µs
Thermal Resistance		R _{th(j-c)}	Transistor	-	-	0.156	°C/W
			Diode	-	-	0.65	

MG200H1AL2

