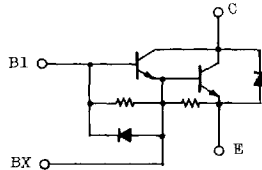


HIGH POWER SWITCHING APPLICATIONS.
MOTOR CONTROL APPLICATIONS.

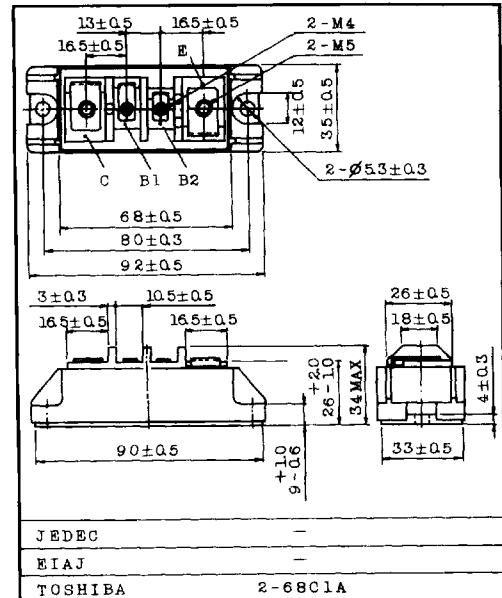
FEATURES:

- . The Collector is Isolated from Case.
- . With Built-in Free Wheeling Diode
- . High DC Current Gain : $h_{FE}=80(\text{Min.})$ ($I_C=150\text{A}$)
- . Low Saturation Voltage
: $V_{CE(\text{sat})}=2\text{V}(\text{Max.})$ ($I_C=150\text{A}$)

EQUIVALENT CIRCUIT



Unit in mm

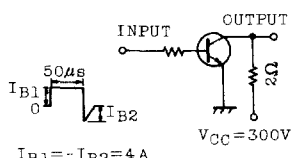
MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

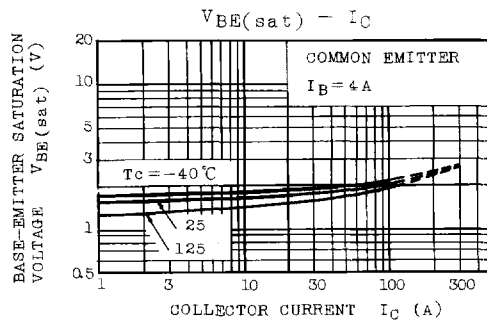
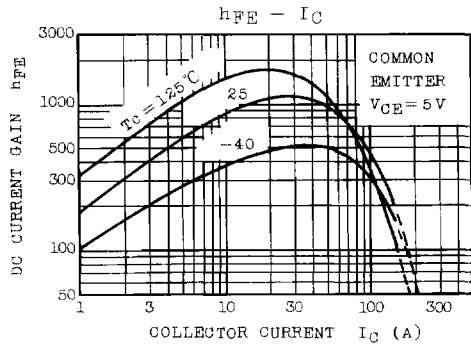
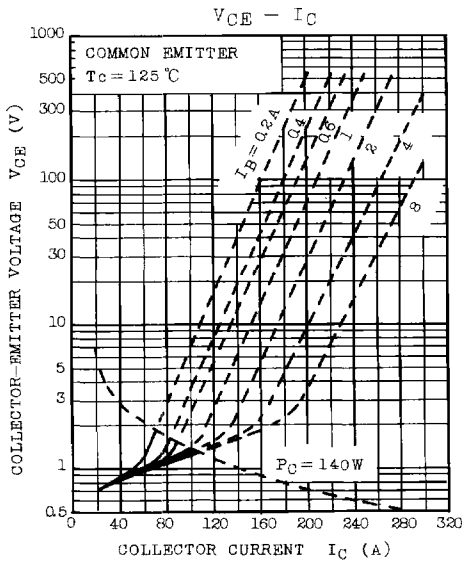
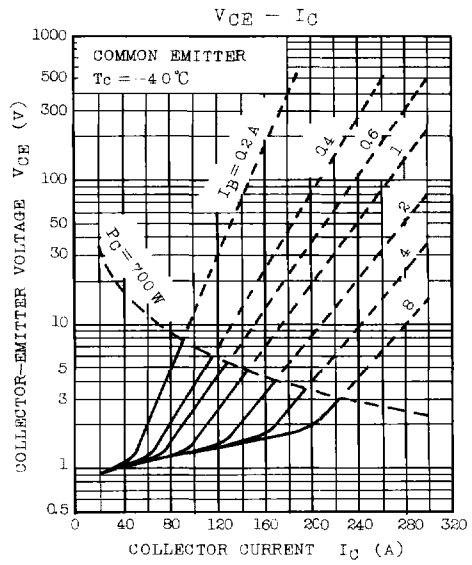
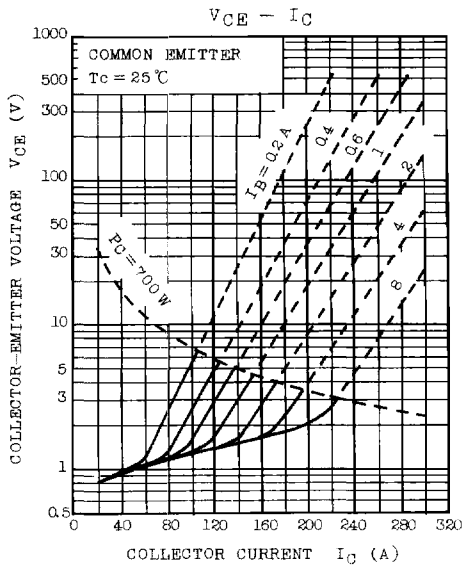
Weight : 210g

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	600	V
Collector-Emitter Sustaining Voltage	$V_{CEX(SUS)}$	600	V
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	550	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	DC	I_C	150
	1ms	I_{CP}	300
Forward Current	DC	I_F	150
	1ms	I_{FM}	300
Base Current	I_B	8	A
Collector Power Dissipation ($T_c=25^\circ\text{C}$)	P_C	700	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40 ~ 125	$^\circ\text{C}$
Isolation Voltage	V_{iso1}	2500 (AC 1 Minute)	V
Screw Torque	Terminal (M4/M5)	-	30/30
	Mounting	-	30

MG150H1FL1

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		IEBO	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 =150A	80	-	-	
Collector-Emitter Saturation Voltage		V _{CE(sat)}	I _C =150A, I _B =4A	-	-	2.0	V
Base-Emitter Saturation Voltage		V _{BE(sat)}		-	-	2.7	V
Switching Time	Turn-on Time	t _{on}	 <p> I_{B1} $50\mu s$ I_{B2} 2Ω $V_{CC}=300V$ </p>	-	-	2.0	μs
	Storage Time	t _{stg}		-	-	12	
	Fall Time	t _f		$I_{B1} = -I_{B2} = 4A$ DUTY CYCLE=0.5%	-	-	
Forward Voltage		V _F	I _F =150A, I _B =0	-	-	1.5	V
Reverse Recovery Time		t _{rr}	I _F =150A, V _{BE} =-3V di/dt=100A/ μs	-	-	2.0	μs
Thermal Resistance		R _{th(j-c)}	Transistor	-	-	0.178	°C/W
			Diode	-	-	0.65	



MG150H1FL1

