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MG150G2YL1

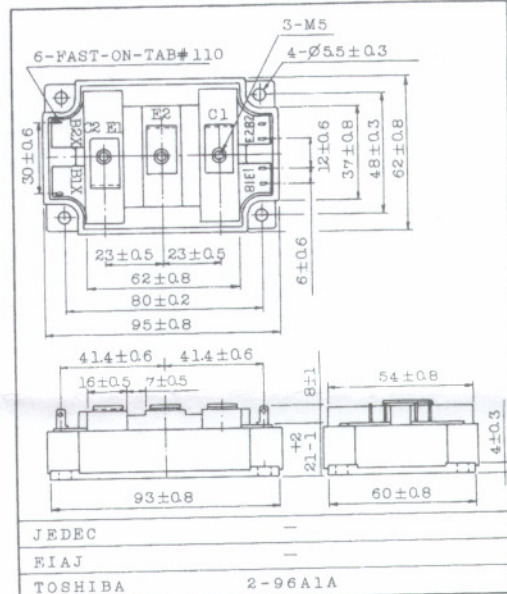
GTR MODULE
SILICON NPN TRIPLE DIFFUSED TYPE

Datasheet provided
by datasheetbook.com

HIGH POWER SWITCHING APPLICATIONS.
MOTOR CONTROL APPLICATIONS.

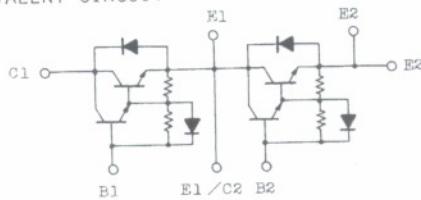
Unit in mm

- The Collector is Isolated from Case
- With Built-in Free Wheeling Diode
- High DC Current Gain: $h_{FE}=100(\text{Min.})(I_C=150A)$
- Low Saturation Voltage
: $V_{CE(sat)}=2V(\text{Max.})(I_C=150A)$
- High Speed : $t_f=2\mu s(\text{Max.})(I_C=150A)$



Weight : 385g

EQUIVALENT CIRCUIT



MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	VCBO	600	V
Collector-Emitter Sustaining Voltage	VCEX(SUS)	600	V
	VCEO(SUS)	450	
Emitter-Base Voltage	VEBO	6	V
Collector Current	DC IC	150	A
	1ms ICP	300	
Forward Current	DC IF	150	A
	1ms IFM	300	
Base Current	IB	20	A
Collector Power Dissipation (Tc=25°C)	PC	700	W
Junction Temperature	Tj	150	°C
Storage Temperature Range	Tstg	-40~125	°C
Isolation Voltage	VIsol	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		ICBO	V _{CB} =600V, I _E =0	-	-	2.0	mA
Emitter Cut-off Current		IEBO	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 =150A	100	-	-	
Collector-Emitter Saturation Voltage		V _{CE(sat)}	I _C =150A, I _B =3A	-	-	2.0	V
Base-Emitter Saturation Voltage		V _{BE(sat)}		-	-	2.7	V
Switching Time	Turn-on Time	t _{on}	<p>INPUT OUTPUT 50 μs I_{B1} I_{B2} V_{CC} = 300V I_{B1} = -I_{B2} = 3A DUTY CYCLE = 0.5%</p>	-	-	3.0	μs
	Storage Time	t _{stg}		-	-	12	
	Fall Time	t _f		-	-	2	
Forward Voltage		V _F	I _F =150A, I _B =0	-	-	1.7	V
Reverse Recovery Time		t _{rr}	I _F =150A, V _{BE} =-3V di/dt=100A/μs	-	-	1.5	μs
Thermal Resistance		R _{th(j-c)}	Transistor	-	-	0.178	°C/W
			Diode	-	-	0.65	

