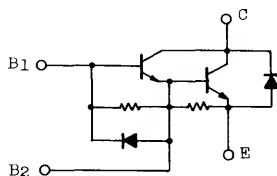


HIGH POWER SWITCHING APPLICATIONS.
MOTOR CONTROL APPLICATIONS.

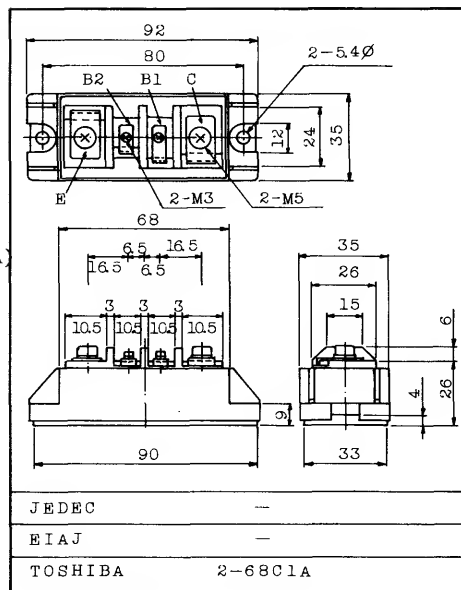
FEATURES:

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

EQUIVALENT CIRCUIT



Unit in mm



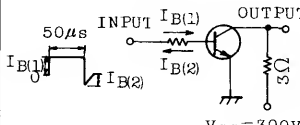
Weight : 210g

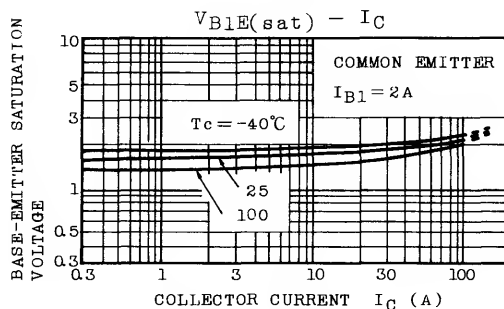
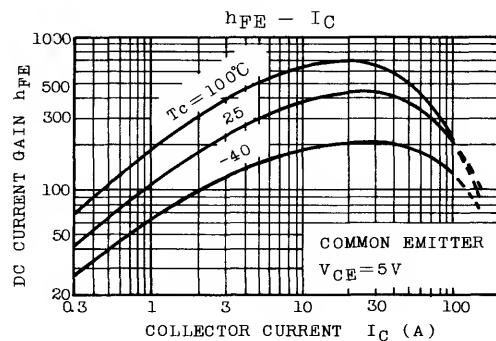
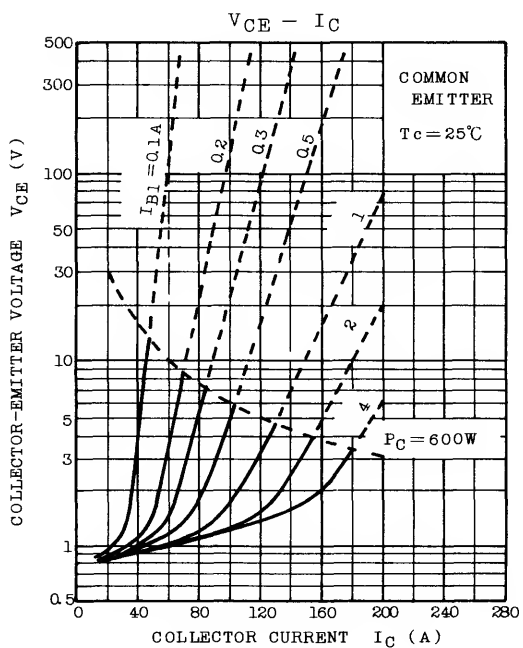
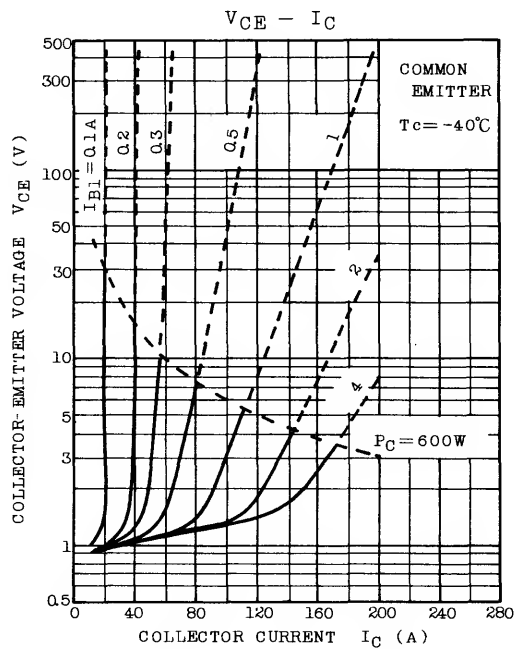
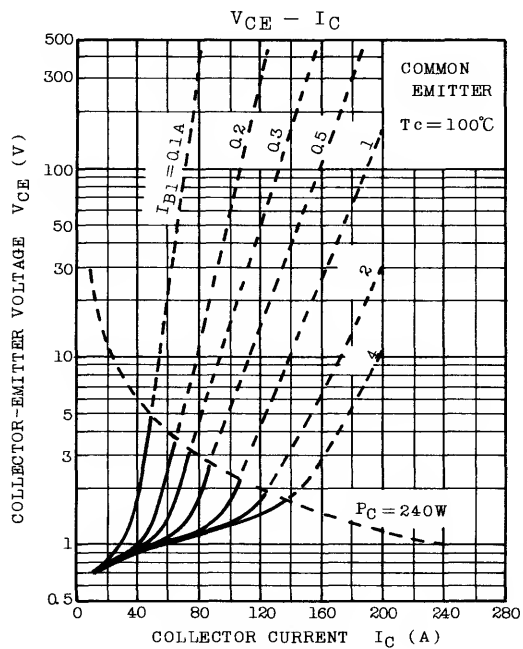
MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB10}	600	V
Collector-Emitter Voltage		V_{CE0}	600	V
Collector-Emitter Sustaining Voltage		$V_{CE0(SUS)}$	450	V
Emitter-Base Voltage		V_{EB10}	6	V
Collector Current	DC	I_C	100	A
	1ms	I_C	200	A
	DC	$-I_C$	100	A
Base Current		I_{B1}	5	A
Collector Power Dissipation ($T_c=25^\circ C$)		P_C	600	W
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-40 ~ 125	$^\circ C$
Isolation Voltage		V_{Isol}	2000(AC 1 Minute)	V
Screw Torque	Terminal (M3/M5)		10/30	kg·cm
	Mounting		30	

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ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CB10}	$V_{CB1}=600V, I_E=0$	-	-	2.0	mA
Emitter Cut-off Current		I_{EB10}	$V_{EB1}=6V, I_C=0$	-	-	400	mA
Collector-Emitter Sustaining Voltage		$V_{CEO(SUS)}$	$I_C=0.5A, L=40mH$	450	-	-	V
DC Current Gain		h_{FE}	$V_{CE}=5V, I_C=100A$	100	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=100A, I_{B1}=2A$	-	-	2.0	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$		-	-	2.5	V
Emitter-Collector Voltage		V_{ECO}	$I_E=100A, I_B=0$	-	-	1.5	V
Reverse Recovery Time		t_{rr}	$-I_C=100A, V_{EB1}=3V$ $V_{CE}=300V$	-	-	2.0	μs
Collector Output Capacitance		C_{ob}	$V_{CB1}=50V, I_E=0, f=1MHz$	-	1000	-	pF
Switching Time	Turn-on Time	t_{on}	 $I_{B(1)} = -I_{B(2)} = 2A$ DUTY CYCLE=0.5%	-	-	1.0	μs
	Storage Time	t_{stg}		-	-	12	
	Fall Time	t_f		-	-	2.0	
Thermal Resistance (Junction to Case)		$R_{th(j-c)}$	Transistor	-	-	0.208	$^{\circ}C/W$
			Diode	-	-	0.65	



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