

TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR SILICON N CHANNEL IGBT

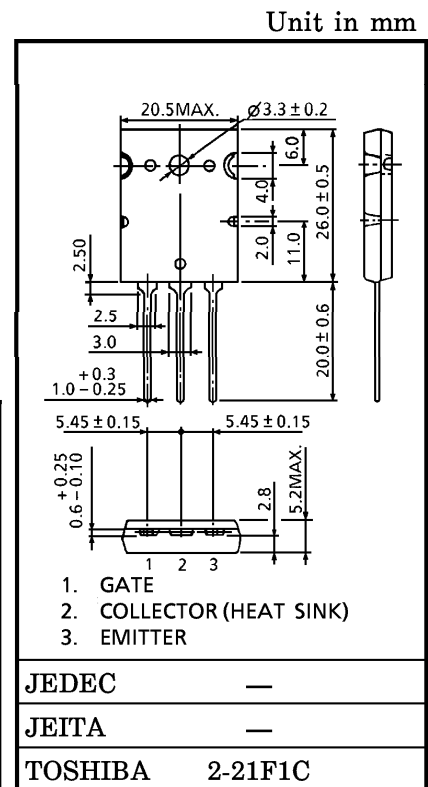
GT20D101

HIGH POWER AMPLIFIER APPLICATION

- High Breakdown Voltage : $V_{CES}=250V$ (Min.)
- High Forward Transfer Admittance : $|Y_{fe}|=10S$ (Typ.)
- Complementary to GT20D201
- Enhancement-Mode

MAXIMUM RATINGS (T_a = 25°C)

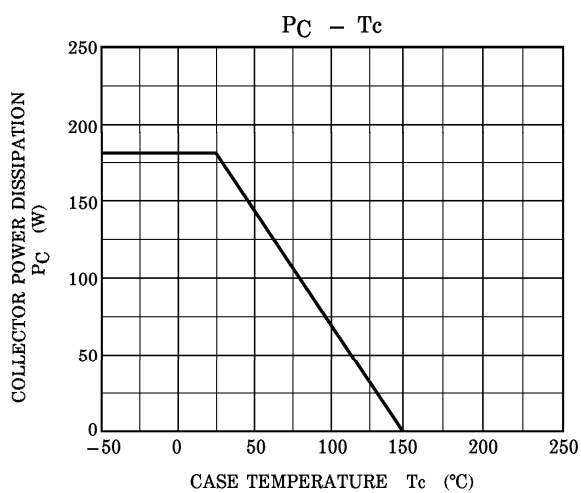
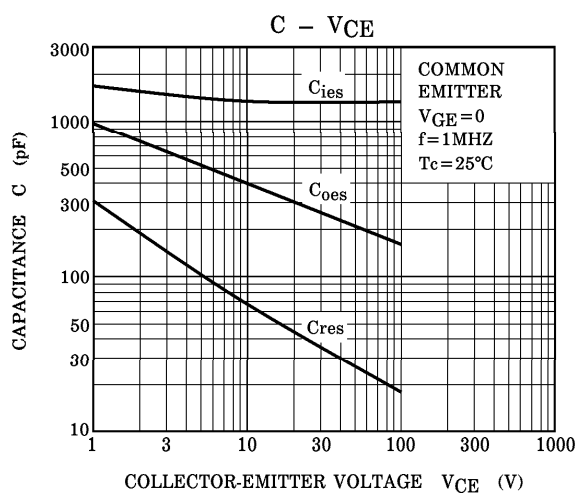
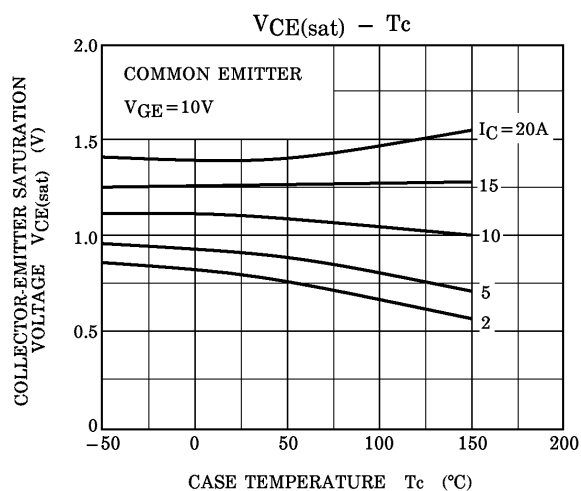
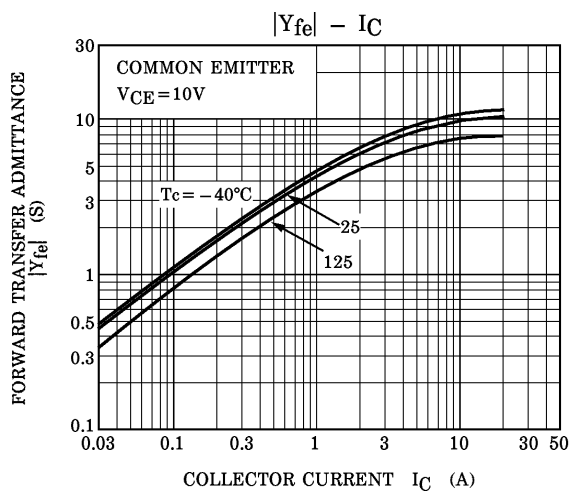
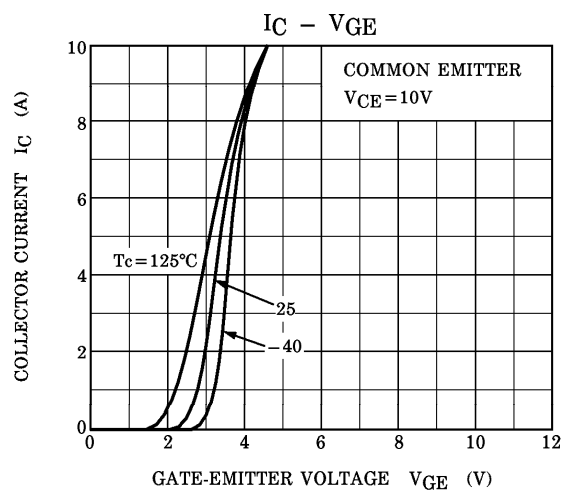
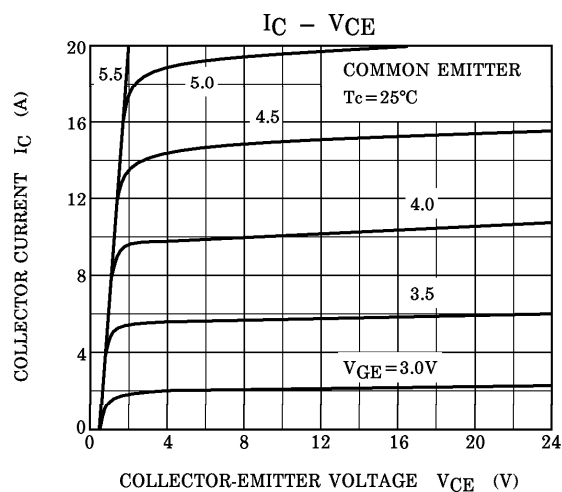
CARACTERISTICS	SYMBOL	RATINGS	UNIT
Collector-Emitter Voltage	V_{CES}	250	V
Gate-Emitter Voltage	V_{GES}	± 20	V
Collector Current	I_C	20	A
Latch Up Current	I_L	60	A
Collector Power Dissipation ($T_c=25^{\circ}\text{C}$)	P_C	180	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	$-55\sim 150$	$^{\circ}\text{C}$

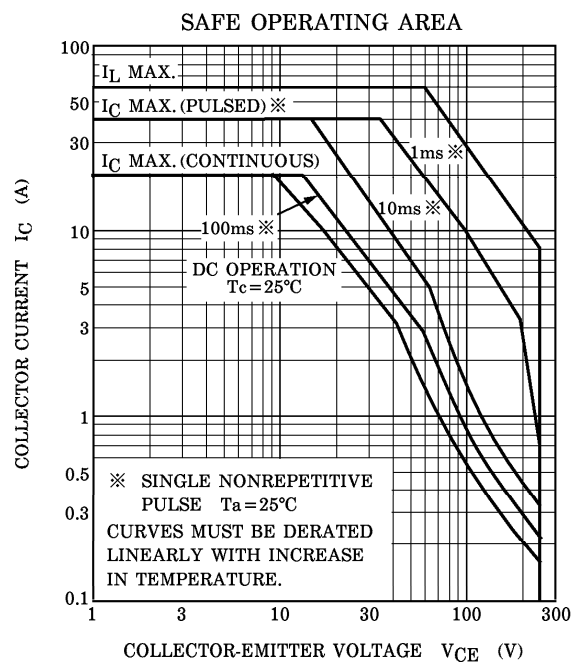


Weight : 9.75g

ELECTRICAL CHARACTERISTICS (T_a = 25°C)

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CES}	$V_{CE} = 250V, V_{GE} = 0$	—	—	50	μA
Gate Leakage Current	I_{GES}	$V_{GE} = \pm 20V, V_{CE} = 0$	—	—	± 10	μA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 15A, V_{GE} = 10V$	—	1.5	3.0	V
Gate-Emitter Cut-off Voltage	$V_{GE(OFF)}$	$V_{CE} = 10V, I_C = 100mA$	1.4	—	3.2	V
Forward Transfer Admittance	$ Y_{fe} $	$V_{CE} = 10V, I_C = 1A$	—	3	—	S
	$ Y_{fe} $	$V_{CE} = 10V, I_C = 10A$	—	10	—	
Input Capacitance	C_{ies}	$V_{CE} = 10V, I_E = 0$ $f = 1MHz$	—	1400	—	pF
Output Capacitance	C_{oes}	$V_{CE} = 10V, I_E = 0$ $f = 1MHz$	—	400	—	pF
Reverse Transfer Capacitance	C_{res}	$V_{CE} = 10V, I_E = 0$ $f = 1MHz$	—	65	—	pF





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