

TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR SILICON N CHANNEL TYPE

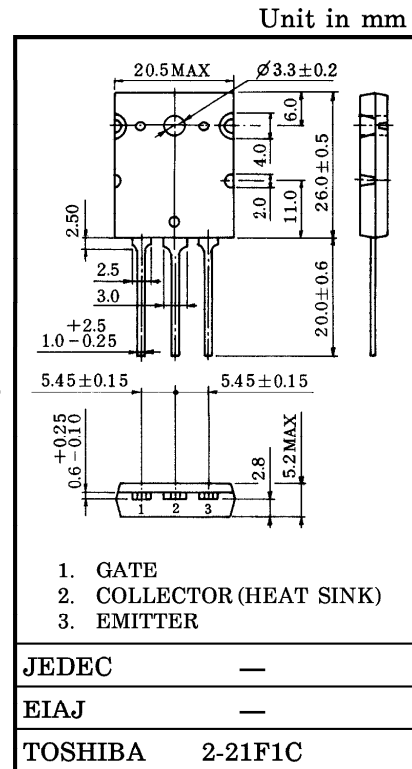
# GT20D101

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 ( $T_a = 25^\circ C$ )

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



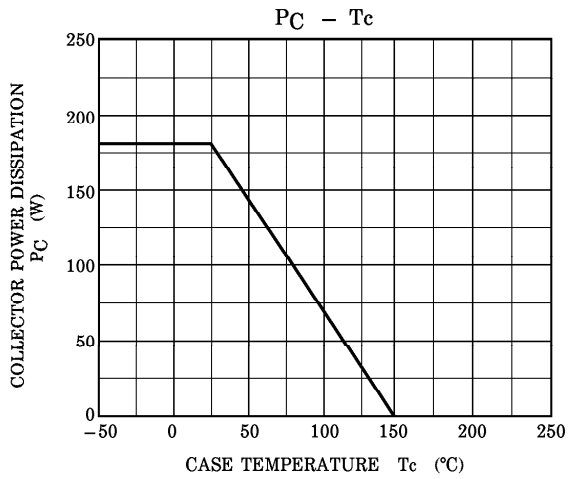
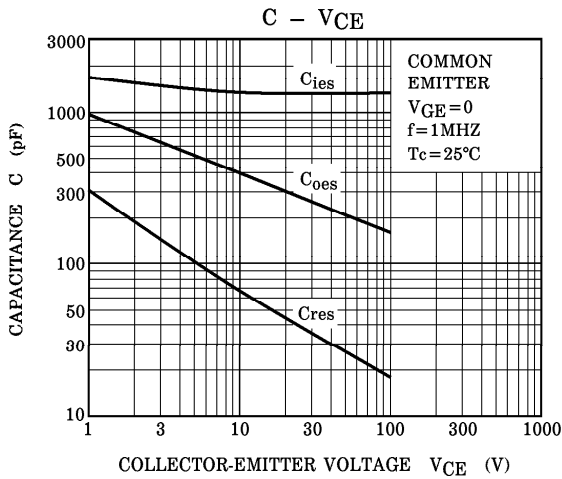
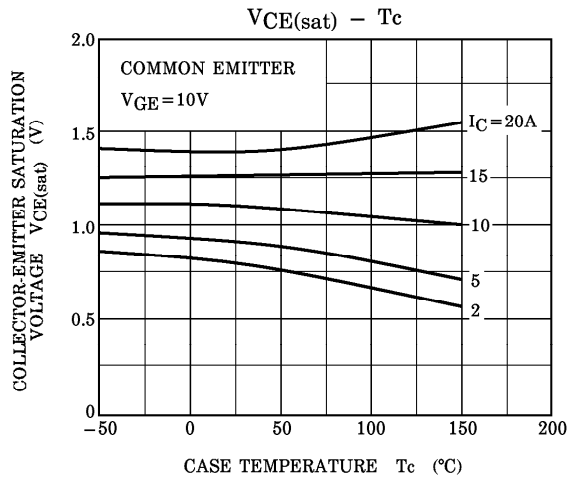
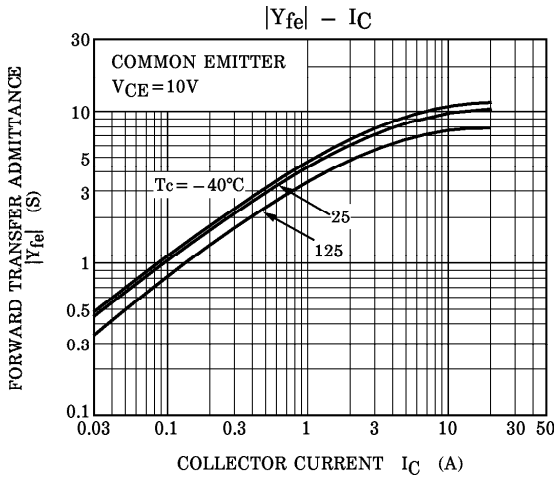
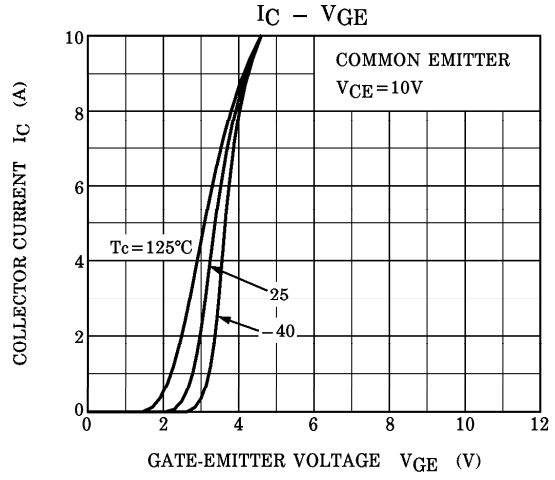
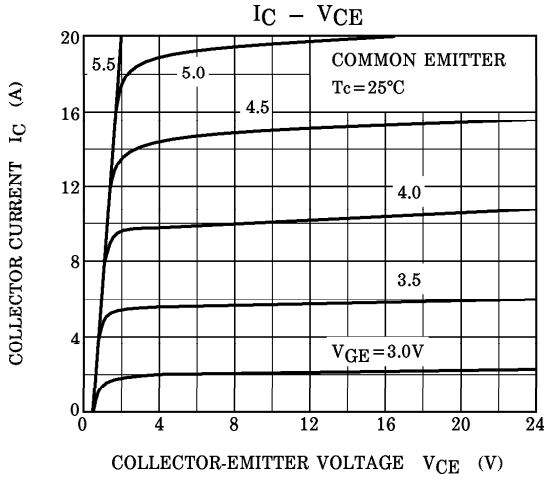
Weight : 9.75g

ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

CARACTERISTICS	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CES}$	$V_{CE} = 250V, V_{GE} = 0$	—	—	50	$\mu A$
Gate Leakage Current	$I_{GES}$	$V_{GE} = \pm 20V, V_{CE} = 0$	—	—	$\pm 10$	$\mu A$
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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