

TOSHIBA INSULATED GATE BIPOLAR TRANSISTOR

SILICON N CHANNEL TYPE

GT20D101

TOSHIBA (DISCRETE/OPTO)

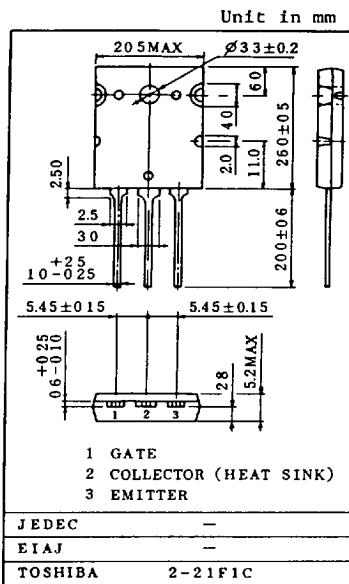
T 39-31

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 ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	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 ($T_c=25^\circ C$)	P_C	180	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	$-55 \sim 150$	$^\circ C$

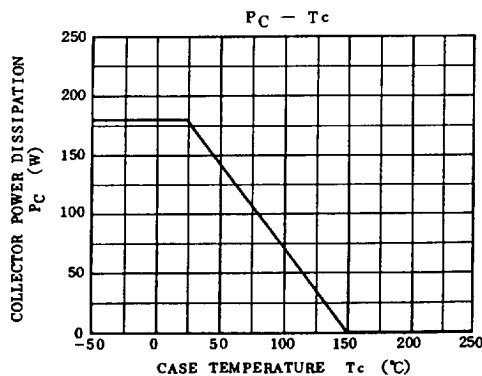
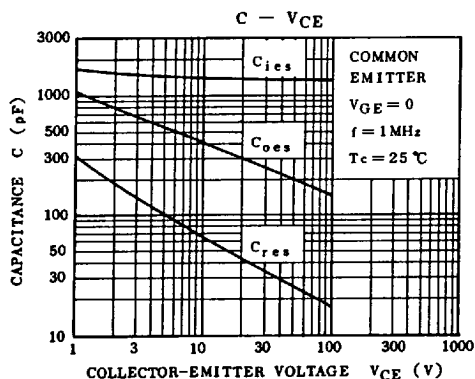
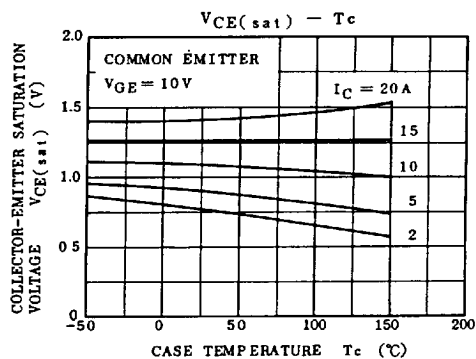
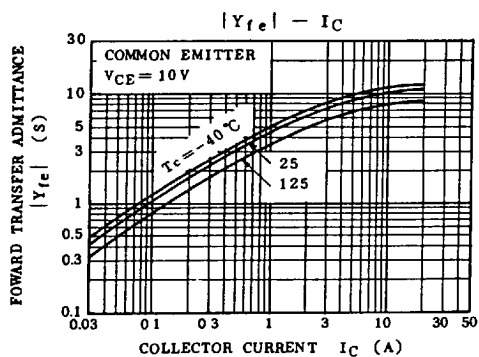
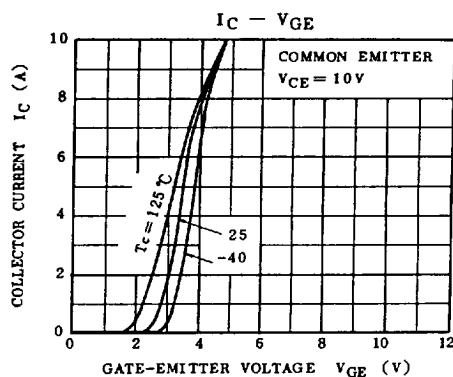
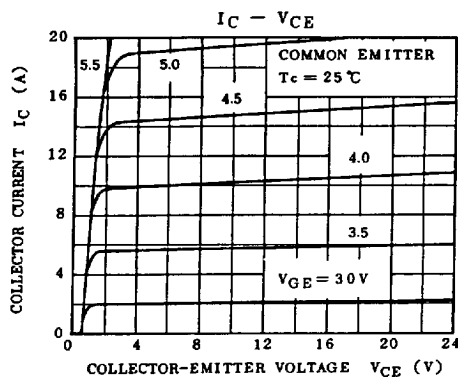


Weight : 9.75g

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

CHARACTERISTIC	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}	$V_{GE}=\pm 20V, V_{CE}=0$	—	—	± 0.5	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	$I_C=100\mu A, V_{GE}=0$	250	—	—	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=15A, V_{GE}=10V$	—	1.5	3.0	V
Gate-Emitter Cut-off Voltage (Note)	$V_{GE(OFF)}$	$V_{CE}=10V, I_C=100mA$	1.0	—	3.6	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}	$V_{CE}=10V, V_{GE}=0, f=1MHz$	—	1400	—	pF
Output Capacitance	C_{oes}	$V_{CE}=10V, V_{GE}=0, f=1MHz$	—	400	—	pF
Reverse Transfer Capacitance	C_{res}	$V_{CE}=10V, V_{GE}=0, f=1MHz$	—	65	—	pF

(Note) $V_{GE(OFF)}$ Classification 0 : 1.0~2.4 Y : 2.2~3.6



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