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TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SC5200

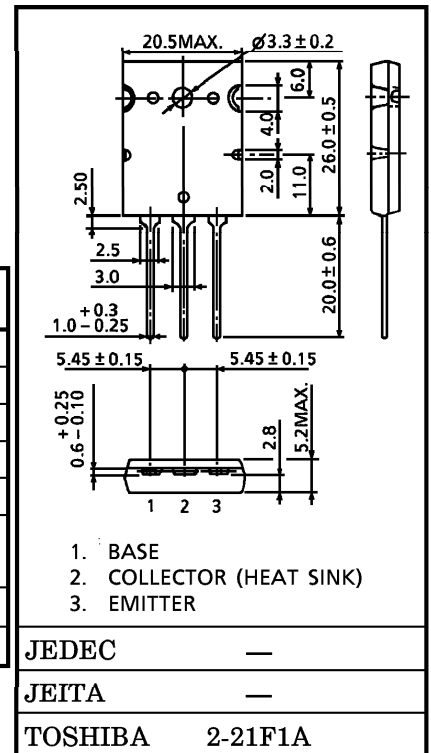
POWER AMPLIFIER APPLICATIONS

- Complementary to 2SA1943
- Recommended for 100W High Fidelity Audio Frequency Amplifier Output Stage.

MAXIMUM RATINGS (T_c = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	230	V
Collector-Emitter Voltage	V _{CEO}	230	V
Emitter-Base Voltage	V _{EB0}	5	V
Collector Current	I _C	15	A
Base Current	I _B	1.5	A
Collector Power Dissipation (T _c = 25°C)	P _C	150	W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55~150	°C

Unit in mm



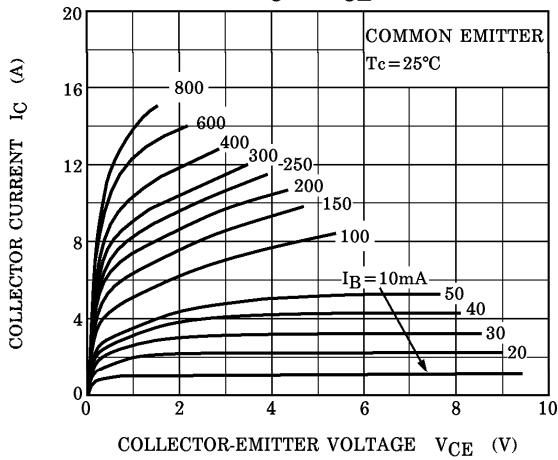
Weight : 9.75g (Typ.)

ELECTRICAL CHARACTERISTICS (T_c = 25°C)

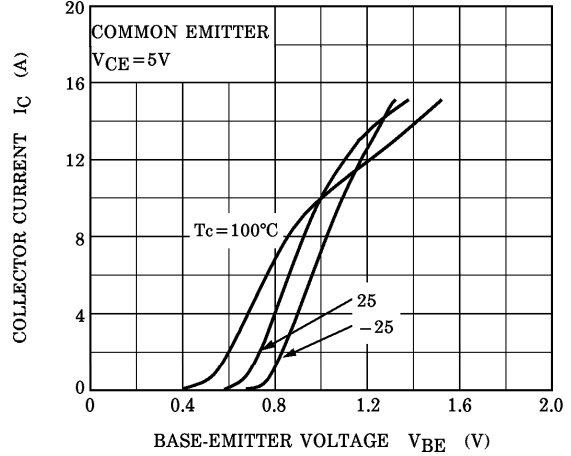
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CB0}	V _{CB} = 230V, I _E = 0	—	—	5.0	μA
Emitter Cut-off Current	I _{EB0}	V _{EB} = 5V, I _C = 0	—	—	5.0	μA
Collector-Emitter Breakdown Voltage	V (BR) CEO	I _C = 50mA, I _B = 0	230	—	—	V
DC Current Gain	h _{FE} (1) (Note)	V _{CE} = 5V, I _C = 1A	55	—	160	
	h _{FE} (2)	V _{CE} = 5V, I _C = 7A	35	60	—	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	I _C = 8A, I _B = 0.8A	—	0.40	3.0	V
Base-Emitter Voltage	V _{BE}	V _{CE} = 5V, I _C = 7A	—	1.0	1.5	V
Transition Frequency	f _T	V _{CE} = 5V, I _C = 1A	—	30	—	MHz
Collector Output Capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz	—	200	—	pF

(Note) : h_{FE} (1) Classification R : 55~110, O : 80~160

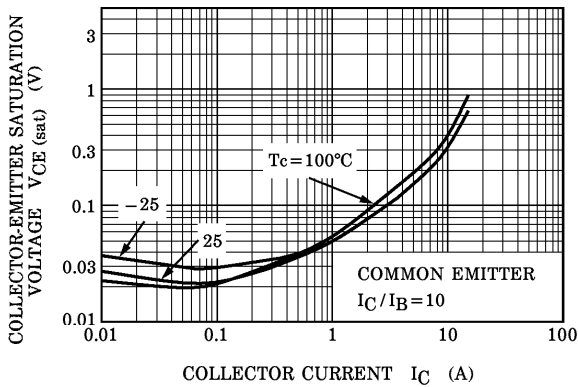
$I_C - V_{CE}$



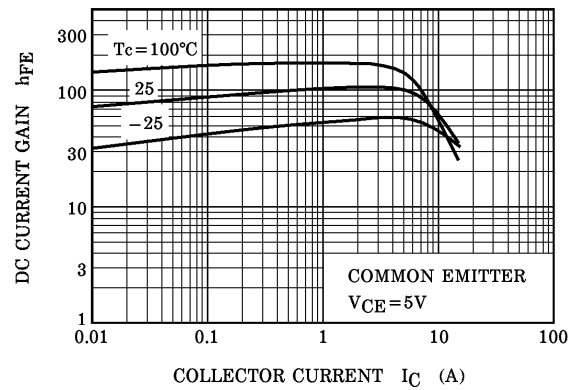
$I_C - V_{BE}$



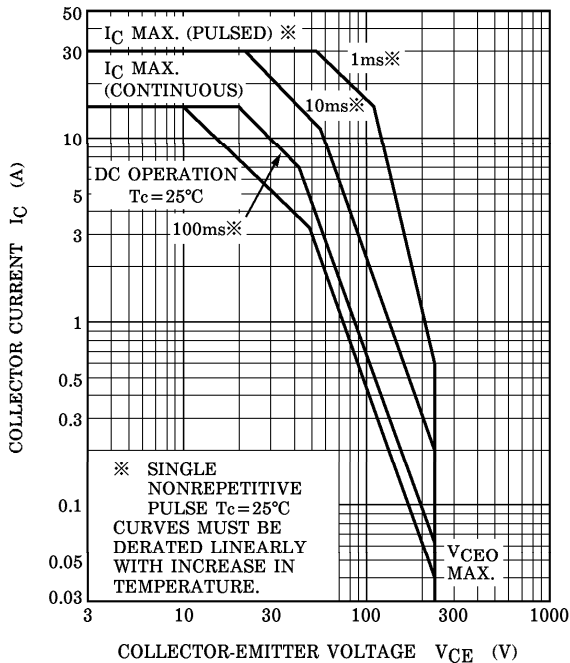
$V_{CE}(\text{sat}) - I_C$



$h_{FE} - I_C$



SAFE OPERATING AREA



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