Transistor

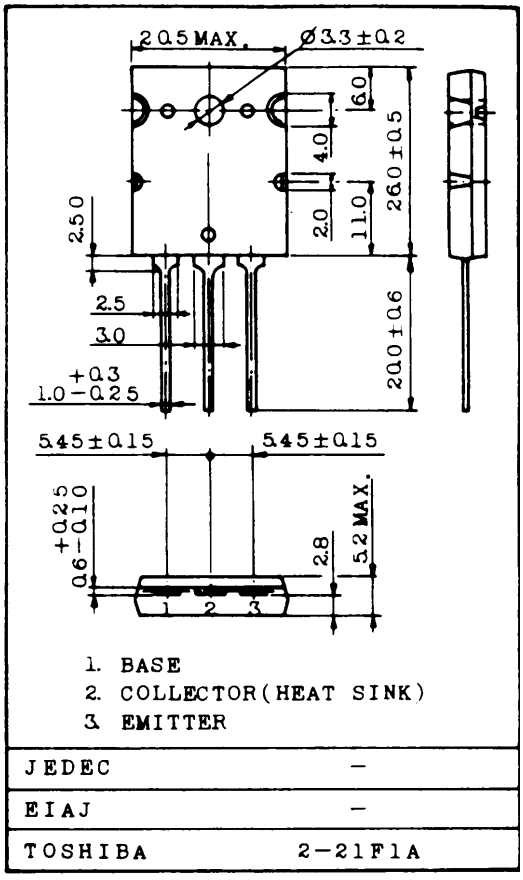
Silicon NPN Triple Diffused Type

Power Amplifier Applications

Features

- Complementary to 2SA1302
- Recommended for 100W High Fidelity Audio Frequency Amplifier Output Stage

Unit in mm



Weight : 9.75g

Absolute Maximum Ratings (Ta = 25°C)

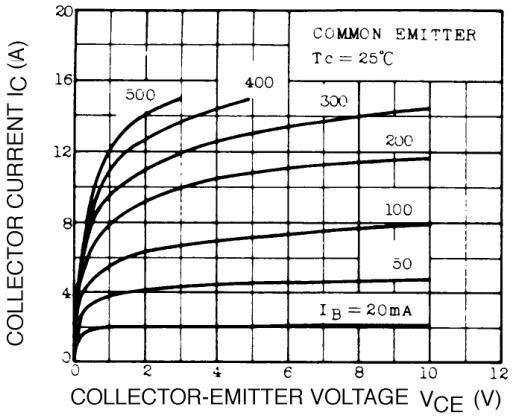
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CEO}	200	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	15	A
Base Current	I_B	1.5	A
Collector PowerDissipation (Tc = 25°C)	P_C	150	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

Electrical Characteristics (Ta = 25°C)

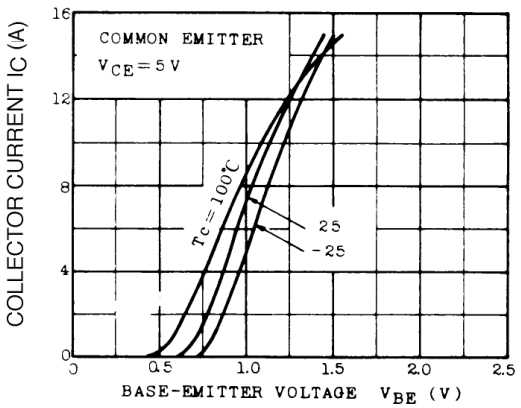
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 200V, I_E = 0	–	–	5.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	–	–	5.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)\ CEO}$	I_C = 50mA, I_B = 0	200	–	–	V
DC Current Gain	$h_{FE(1)\ (Note)}$	V_{CE} = 5V, I_C = 1mA	55	–	160	
	$h_{FE(2)}$	V_{CE} = 5V, I_C = 8A	35	60	–	
Saturation Voltage Collector-Emitter	$V_{CE(sat)}$	I_C = 10A, I_B = 1A	–	0.40	3.0	V
Base-Emitter Voltage	V_{BE}	V_{CE} = 5V, I_C = 8A	–	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	–	270	–	pF

Note: h_{FE} (1) Classification R : 0: 55 ~ 110, 0 : 80 ~ 160

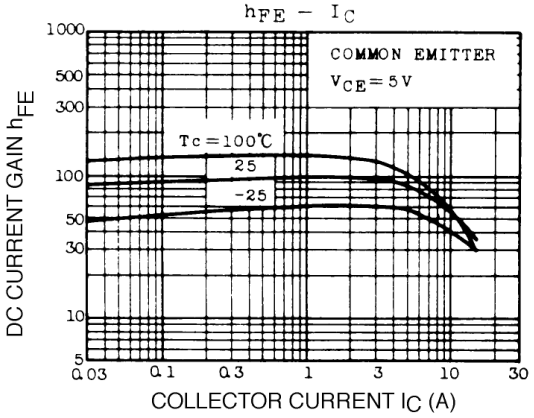
I_C – V_{CE}



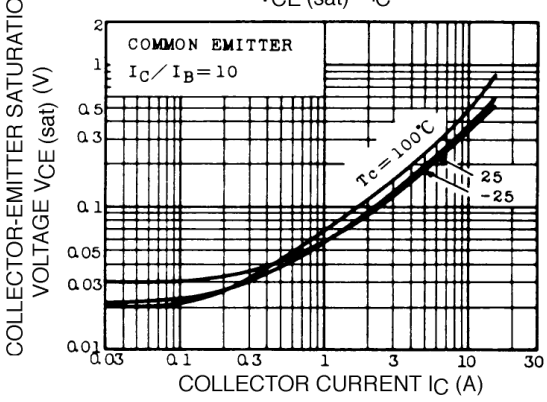
I_C – V_{BE}



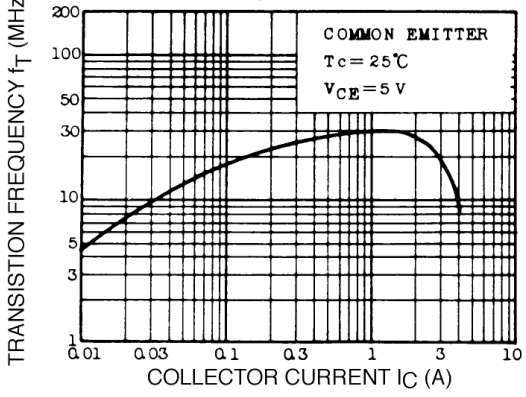
h_{FE} – I_C



V_{CE} (sat) - I_C



f_T – I_C



SAFE OPERATING AREA