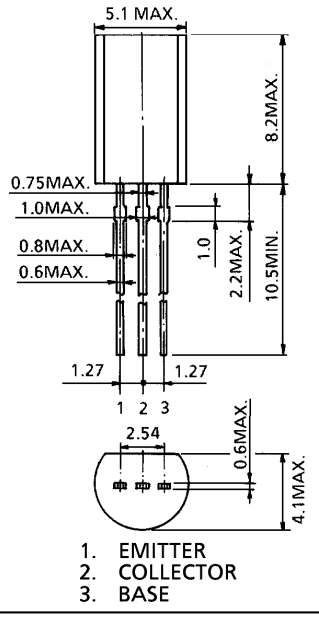
TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1145

AUDIO FREQUENCY AMPLIFIER APPLICATIONS

Unit in mm

- Complementary to 2SC2705.
- Small Collector Output Capacitance : C_{ob} = 2.5 pF (Typ.)
- High Transition Frequency : f_T = 200 MHz (Typ.)



JEDEC	TO-92MOD
JEITA	—
TOSHIBA	2-5J1A

Weight : 0.36 g (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

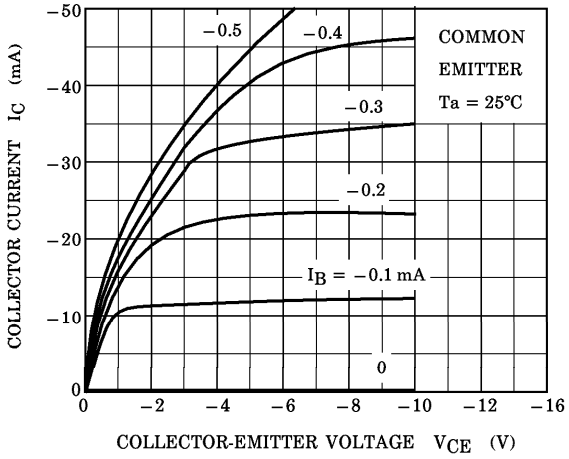
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	−150	V
Collector-Emitter Voltage	V_{CEO}	−150	V
Emitter-Base Voltage	V_{EBO}	−5	V
Collector Current	I_C	−50	mA
Base Current	I_B	−5	mA
Collector Power Dissipation	P_C	800	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

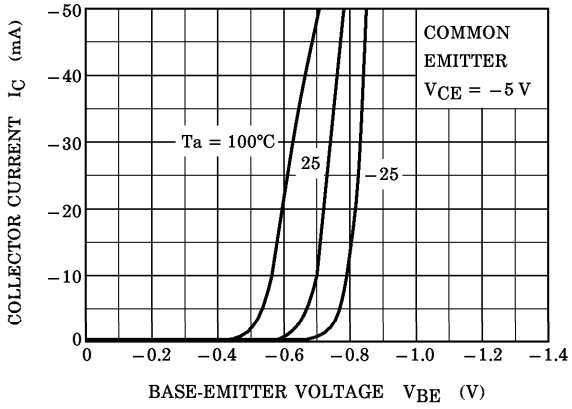
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = −150 V, I_E = 0	—	—	−0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = −5 V, I_C = 0	—	—	−0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = −1 mA, I_B = 0	−150	—	—	V
DC Current Gain	h_{FE} (Note)	V_{CE} = −5 V, I_C = −10 mA	80	—	240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = −10 mA, I_B = −1 mA	—	—	−1.0	V
Base-Emitter Voltage	V_{BE}	V_{CE} = −5 V, I_C = −10 mA		—	−0.8	V
Transition Frequency	f_T	V_{CE} = −5 V, I_C = −10 mA	—	200	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = −10 V, I_E = 0, f = 1 MHz	—	2.5	—	pF

(Note) : h_{FE} Classification O : 80~160, Y : 120~240

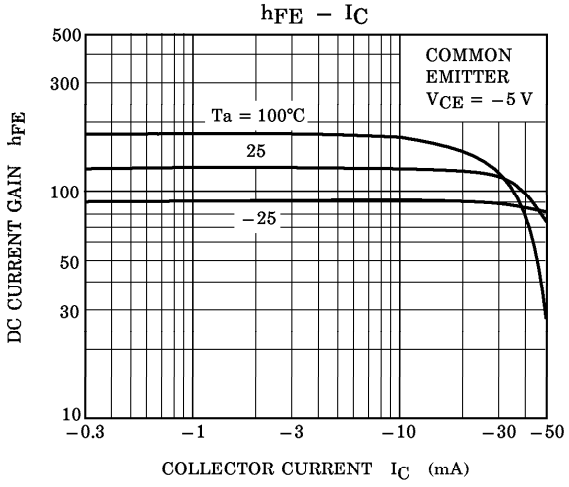
$I_C - V_{CE}$



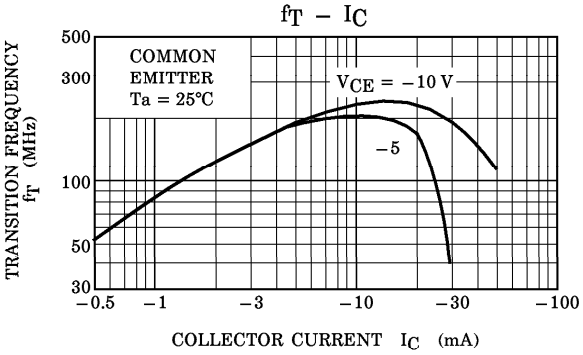
$I_C - V_{BE}$



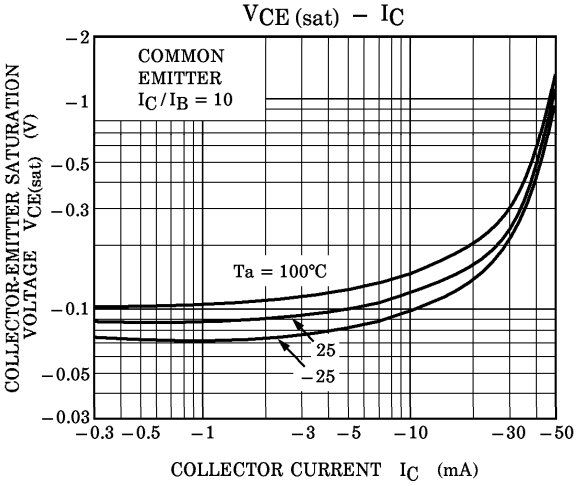
$h_{FE} - I_C$



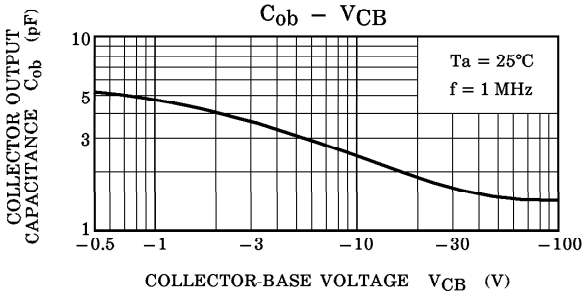
$f_T - I_C$



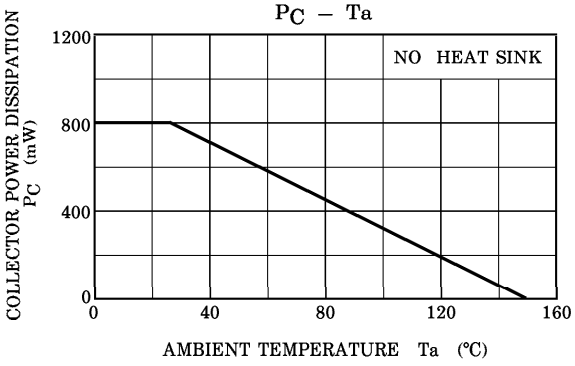
$V_{CE(sat)} - I_C$



$C_{ob} - V_{CB}$



$P_C - Ta$



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