

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

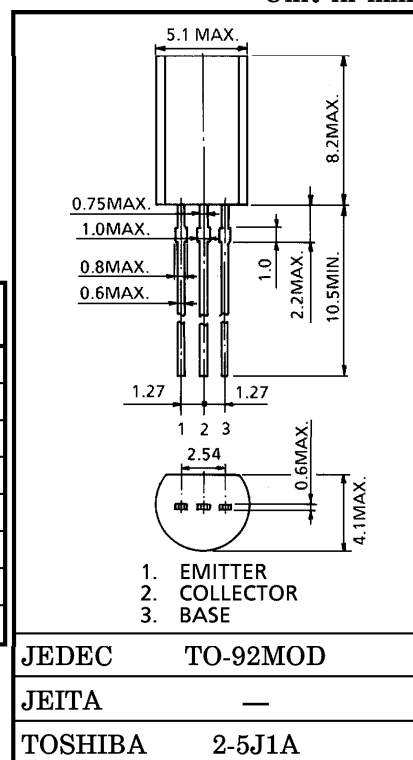
2SA1145

AUDIO FREQUENCY AMPLIFIER APPLICATIONS

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

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^\circ\text{C}$

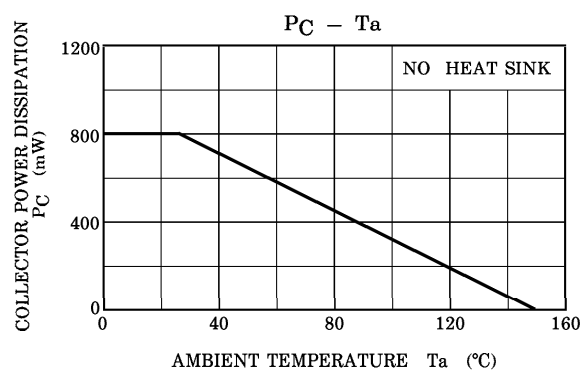
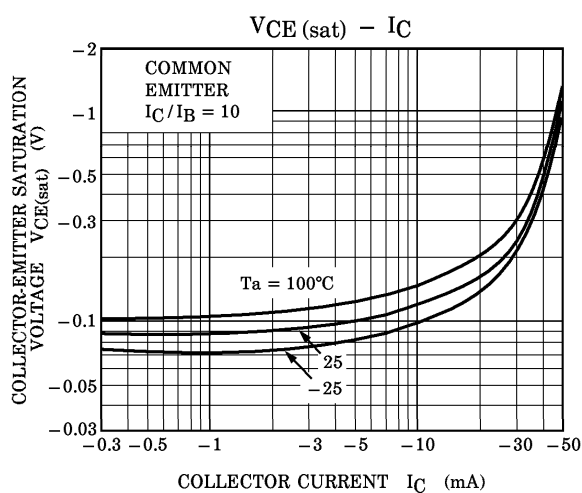
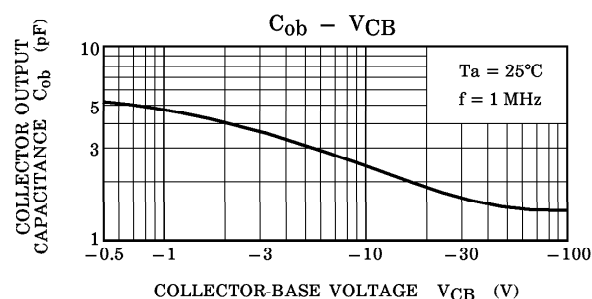
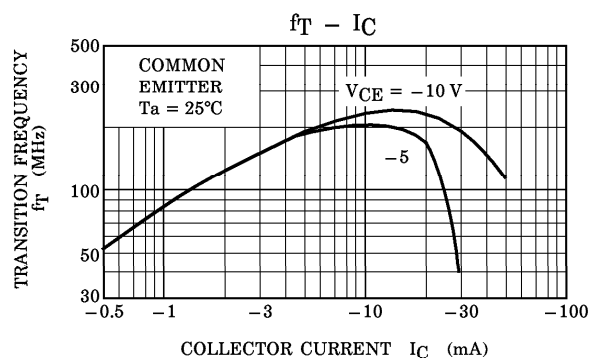
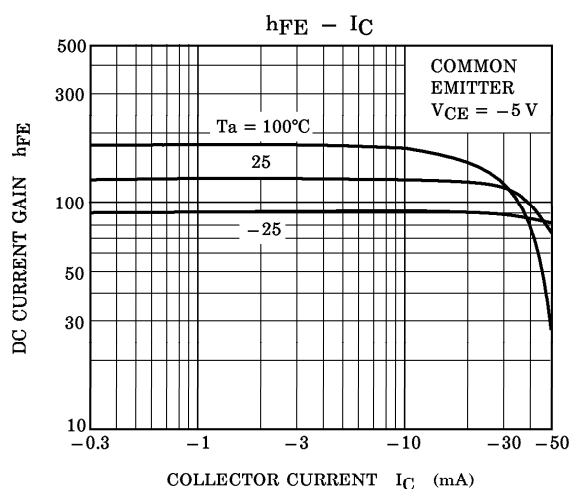
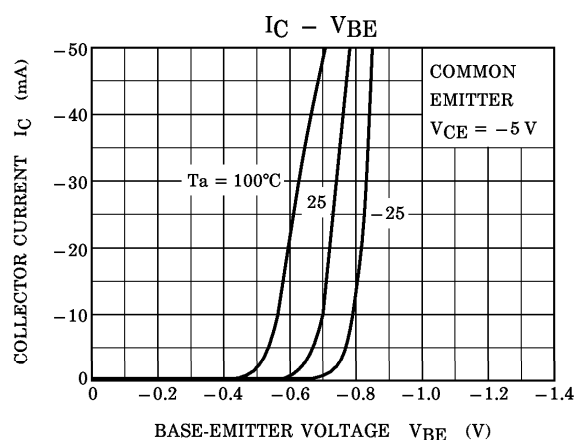
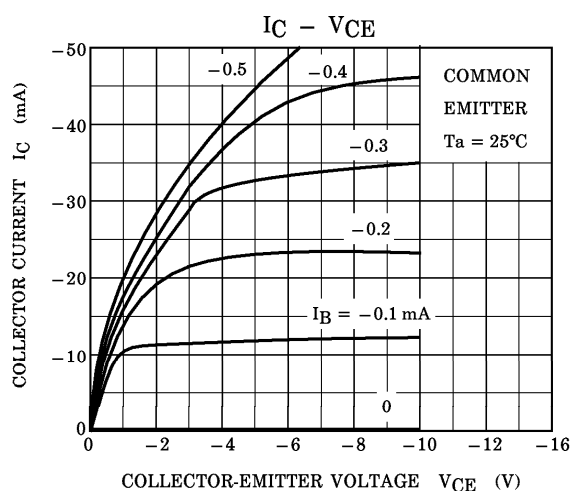


Weight : 0.36 g (Typ.)

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

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

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



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