

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC2705

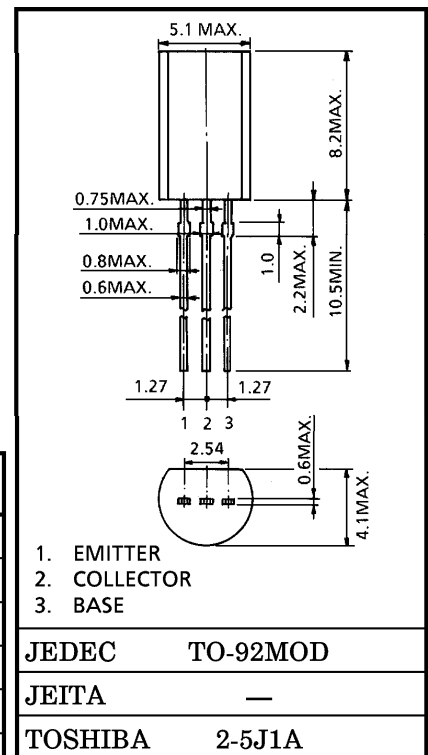
AUDIO FREQUENCY AMPLIFIER APPLICATIONS

Unit in mm

- Complementary to 2SA1145.
- Small Collector Output Capacitance : $C_{ob}=1.8\text{pF}$ (Typ.)
- High Transition Frequency : $f_T=200\text{MHz}$ (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

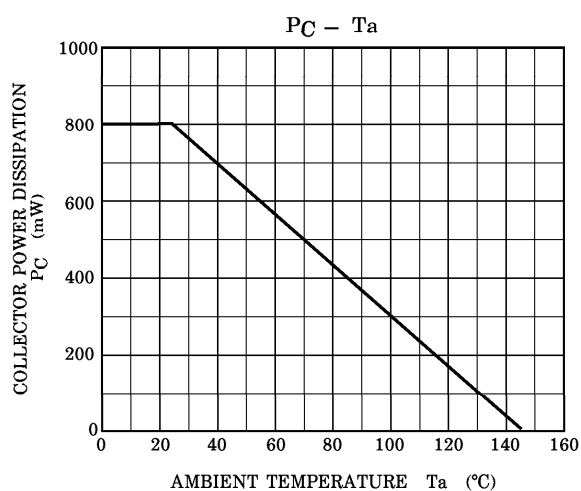
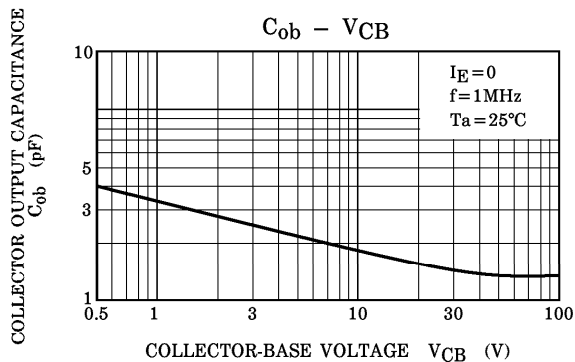
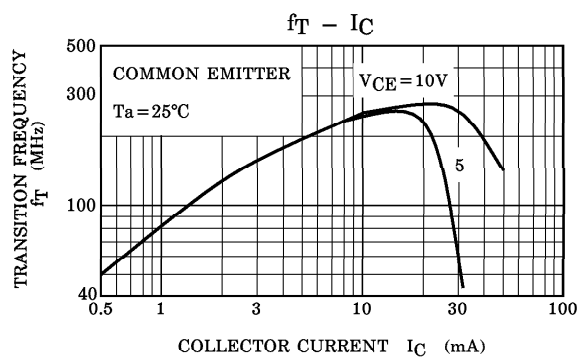
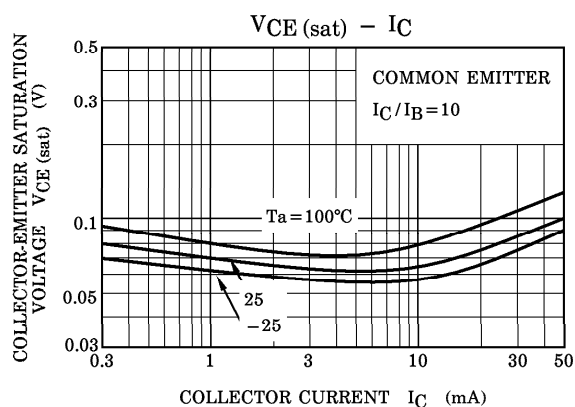
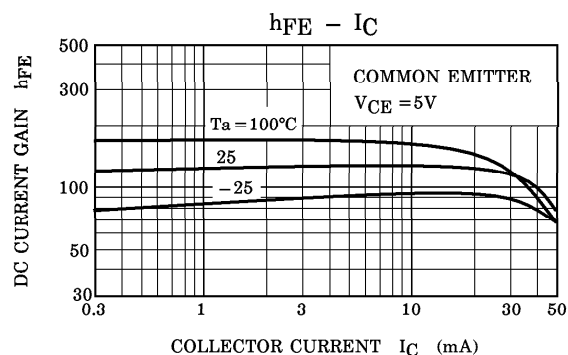
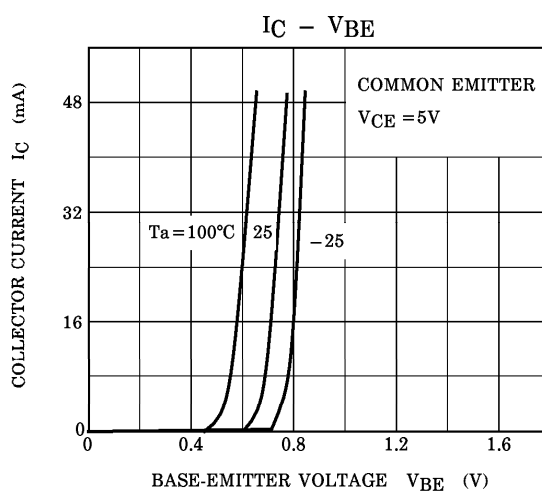
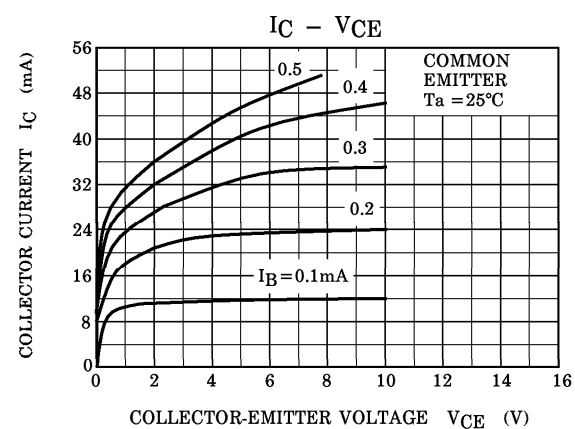


Weight : 0.36g (Typ.)

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=150V, I_E=0$	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	—	—	0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	150	—	—	V
DC Current Gain	h_{FE} (Note)	$V_{CE}=5V, I_C=10mA$	80	—	240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$	—	—	1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=5V, I_C=10mA$	—	—	0.8	V
Transition Frequency	f_T	$V_{CE}=5V, I_C=10mA$	—	200	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	—	1.8	—	pF

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



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