

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC3666

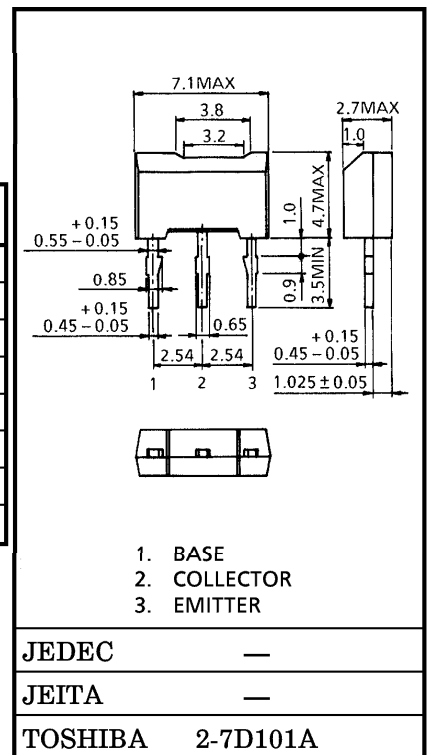
AUDIO POWER AMPLIFIER APPLICATIONS

Unit in mm

- High DC Current Gain : $h_{FE(1)} = 100 \sim 320$

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	30	V
Collector-Emitter Voltage	V_{CE0}	30	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	1	A
Base Current	I_B	0.1	A
Collector Power Dissipation	P_C	1000	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

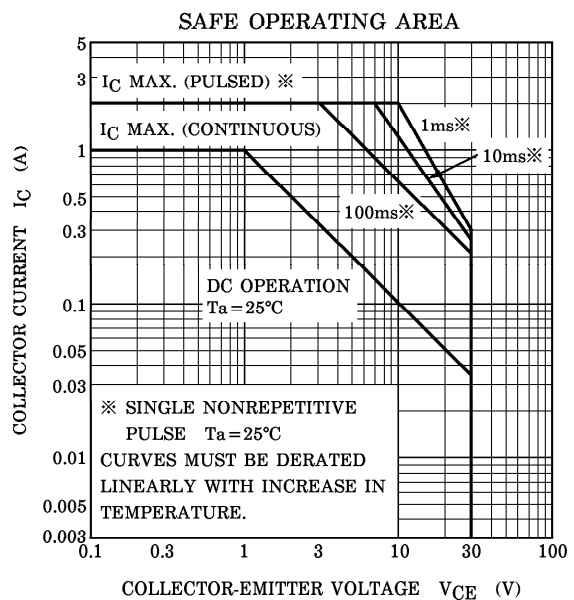
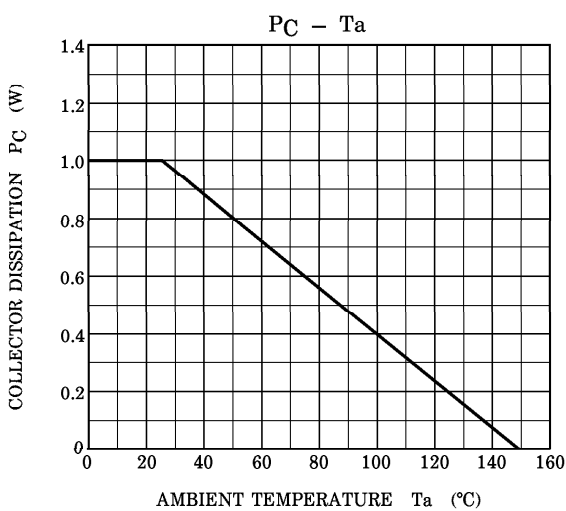
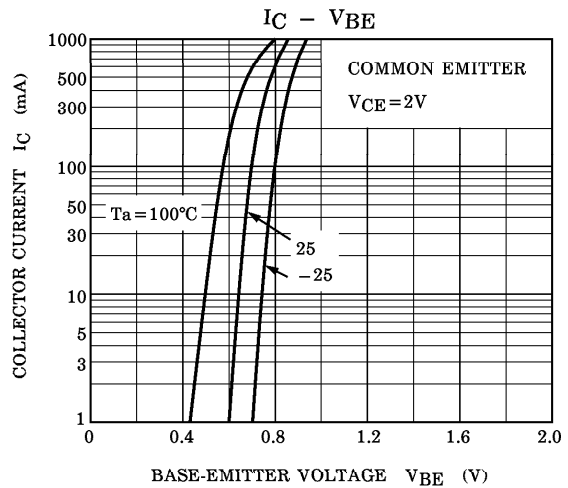
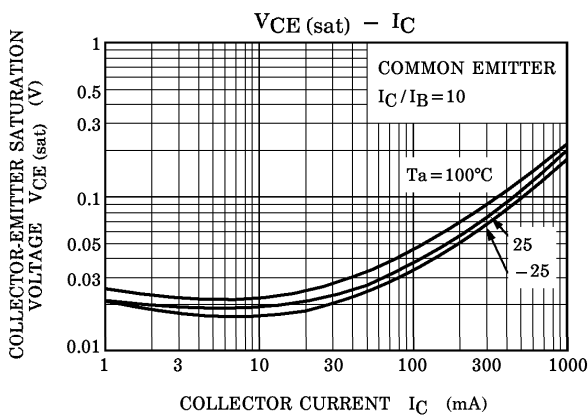
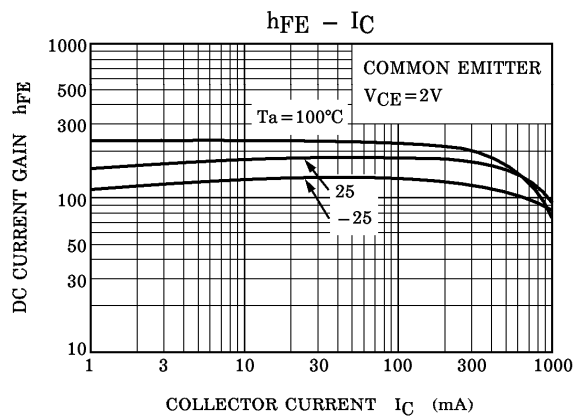
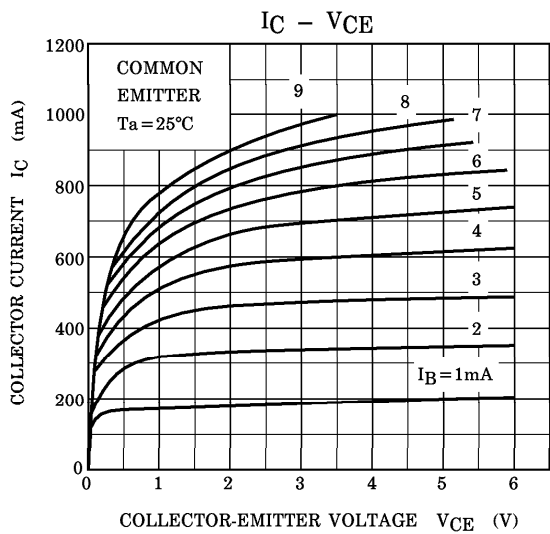


Weight : 0.2g (Typ.)

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 30V, I_E = 0$	—	—	100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	—	—	100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CE0}$	$I_C = 10mA, I_B = 0$	30	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = 2V, I_C = 100mA$	100	—	320	
	$h_{FE(2)}$	$V_{CE} = 2V, I_C = 800mA$	40	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 800mA, I_B = 80mA$	—	—	0.5	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 2V, I_C = 800mA$	—	0.9	1.5	V
Transition Frequency	f_T	$V_{CE} = 2V, I_C = 100mA$	—	150	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, f = 1MHz$	—	13	—	pF

(Note) : h_{FE} Classification O : 100~200, Y : 160~320



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