

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC3666

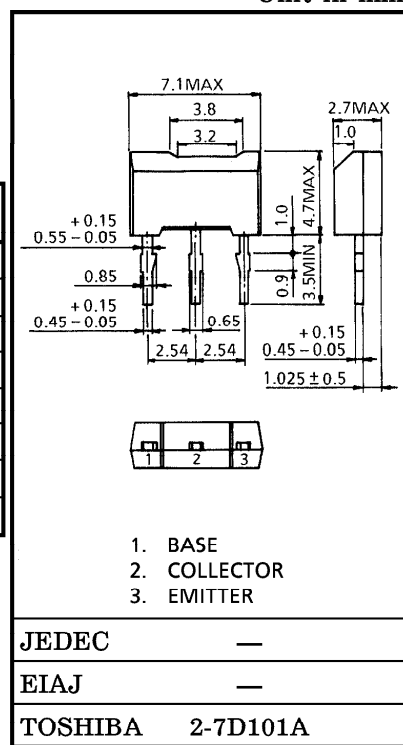
AUDIO POWER AMPLIFIER APPLICATIONS

Unit in mm

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

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim 150$	$^\circ\text{C}$



Weight : 0.2g (Typ.)

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

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

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

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