TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

# 2 S A 1 2 0 3

# AUDIO FREQUENCY AMPLIFIER APPLICATIONS

- Suitable for Output Stage of 3 Watts Amplifier
- PC=1~2W (Mounted on Ceramic Substrate)
- Small Flat Package
- Complementary to 2SC2883

## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$v_{\mathrm{CBO}}$	-30	V
Collector-Emitter Voltage	$v_{CEO}$	-30	V
Emitter-Base Voltage	$v_{\mathrm{EBO}}$	-5	V
Collector Current	$I_{\mathbf{C}}$	-1.5	Α
Base Current	$I_{B}$	-0.3	Α
Collector Power Dissipation	$P_{\mathbf{C}}$	500	mW
Collector Power Dissipation	P <sub>C</sub> (Note 1)	1000	mW
Junction Temperature	Tj	150	°C
Storage Temperature Range	$\mathrm{T_{stg}}$	-55~150	°C

1. BASE
2. COLLECTOR
(HEAT SINK)
PW-MINI
3. EMITTER

JEDEC

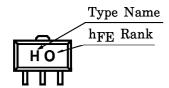
JEITA
SC-62
TOSHIBA
2-5K1A

Unit in mm

Weight: 0.05g (Typ.)

(Note 1): Mounted on ceramic substrate (250mm<sup>2</sup>×0.8t)

### **MARKING**

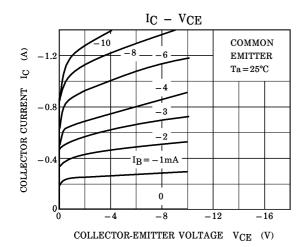


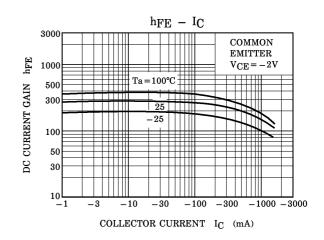
# ELECTRICAL CHARACTERISTICS (Ta = 25°C)

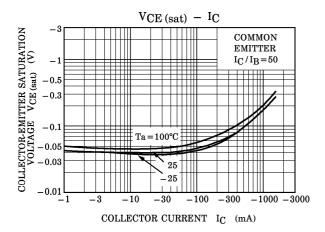
ELECTRICAL CITATOR (TO - 25 C)							
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -30V, I_{E} = 0$	_	_	-0.1	$\mu$ A	
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB} = -5V, I_C = 0$	_	_	-0.1	$\mu$ A	
Collector-Emitter Breakdown Voltage	V (BR) CEO	$I_C = -10 \text{mA}, I_B = 0$	-30	_	_	V	
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	$I_{E} = -1 \text{mA}, I_{C} = 0$	-5	_	_	V	
DC Current Gain	h <sub>FE</sub> (Note 2)	$V_{CE} = -2V, I_{C} = -500 \text{mA}$	100	_	320		
Collector-Emitter Saturation Voltage	V <sub>CE</sub> (sat)	$I_C = -1.5A, I_B = -0.03A$	_	_	-2.0	V	
Base-Emitter Voltage	$ m V_{BE}$	$V_{CE} = -2V, I_{C} = -500 \text{mA}$	_	_	-1.0	V	
Transition Frequency	${ m f_T}$	$V_{CE} = -2V, I_{C} = -500 \text{mA}$	_	120	_	MHz	
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_{E} = 0, f = 1MHz$	_	_	50	pF	

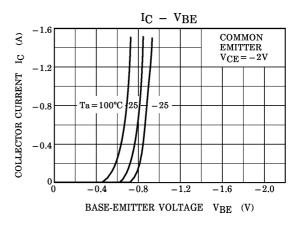
(Note 2): hFE Classification  $O: 100\sim200$ ,  $Y: 160\sim320$ 

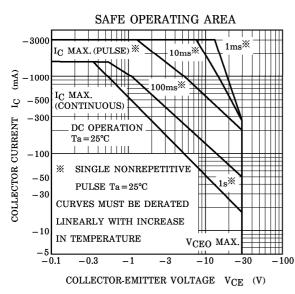
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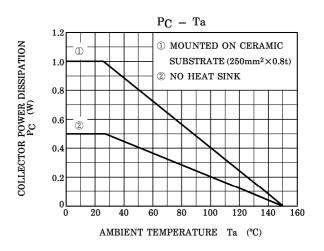












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