TOSHIBA TRANSISTOR SILICON PNP EPITAXIALTYPE (PCT PROCESS)

# 2 S A 1 6 1 8

AUDIO FREQUENCY GENERAL PURPOSE AMPLIFIER APPLICATIONS.

• Small Package (Dual Type)

• High Voltage and High Current

 $: V_{CEO} = -50V, I_{C} = -150mA (Max.)$ 

• High h<sub>FE</sub> :  $h_{FE} = 120 \sim 400$ 

• Excellent hFE Linearity

:  $h_{FE} (I_C = -0.1 \text{mA}) / h_{FE} (I_C = -2 \text{mA}) = 0.95 \text{ (Typ.)}$ 

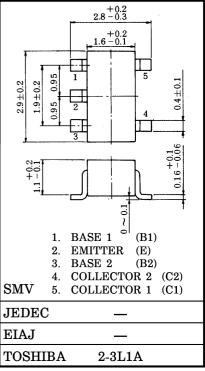
• Complementary to 2SC4207

## MAXIMUM RATINGS (Ta = 25°C) (Q1, Q2 COMMON)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$v_{\mathrm{CBO}}$	-50	V
Collector-Emitter Voltage	$v_{CEO}$	-50	V
Emitter-Base Voltage	$ m v_{EBO}$	-5	V
Collector Current	$I_{\mathbb{C}}$	-150	mA
Base Current	$I_{\mathbf{B}}$	-30	mA
Collector Power Dissipation	PC*	300	mW
Junction Temperature	$T_{j}$	125	°C
Storage Temperature Range	$\mathrm{T_{stg}}$	-55~125	°C

<sup>\*</sup> Total Rating

## Unit in mm



Weight: 0.014g

## ELECTRICAL CHARACTERISTICS (Ta = 25°C) (Q1, Q2 COMMON)

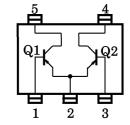
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -50V, I_E = 0$	1	_	-0.1	$\mu$ <b>A</b>
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB} = -5V, I_{C} = 0$	1	-	-0.1	$\mu$ <b>A</b>
DC Current Gain	hFE (Note)	$V_{CE} = -6V, I_{C} = -2mA$	120	_	400	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	$I_C = -100 \text{mA}, I_B = -10 \text{mA}$	1	-0.1	-0.3	V
Transition Frequency	$ m f_{T}$	$V_{CE} = -10V, I_{C} = -1mA$	80	_	_	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_{E} = 0, f = 1MHz$	_	4	7	pF

Note: hFE Classification

Y(Y): 120~240, GR(G): 200~400

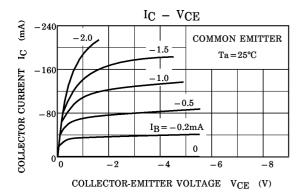
( ) Marking Symbol

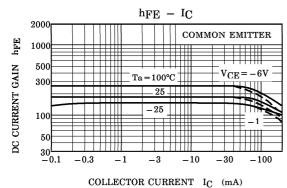
**EQUIVALENT CIRCUIT (TOP VIEW)** 

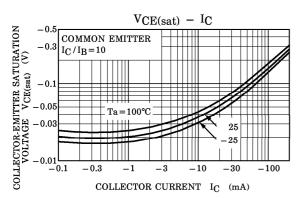


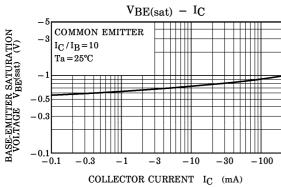


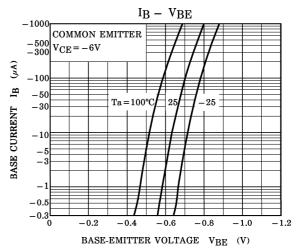
### (Q1, Q2 COMMON)

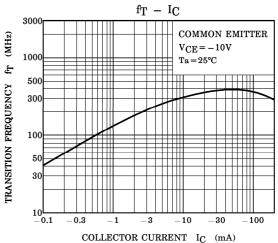


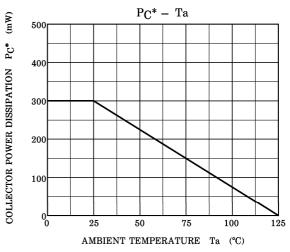












\*: Total Rating

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