Unit in mm

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2 S A 1 0 4 8

AUDIO FREQUENCY AMPLIFIER APPLICATIONS

Small Package

High Voltage : $V_{CEO} = -50V (Min.)$

High hff : $h_{FE} = 70 \sim 400$

Excellent hFE Linearity

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

Low Noise : NF = 1dB (Typ.), 10dB (Max.)

Complementary to 2SC2458

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CBO}	-50	V
Collector-Emitter Voltage	v_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	$I_{\mathbf{C}}$	-150	mA
Base Current	I_{B}	-50	mA
Collector Power Dissipation	PC	200	mW
Junction Temperature	\mathbf{T}_{j}	125	°C
Storage Temperature Range	$T_{ m stg}$	-55~125	°C

0.55MAX 1. EMITTER 2. COLLECTOR 3. BASE **JEDEC EIAJ** TOSHIBA 2-4E1A

Weight: 0.13g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CBO}	$V_{CB} = -50V, I_E = 0$	_		-0.1	μ A
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB} = -5V, I_C = 0$	_		-0.1	μ A
DC Current Gain	hFE (Note)	$V_{CE} = -6V, I_{C} = -2mA$	70		400	
Collector-Emitter Saturation Voltage	V _{CE (sat)}	$I_C = -100 \text{mA}, I_B = -10 \text{mA}$	_	-0.1	-0.3	V
Transition Frequency	$\mathbf{f_T}$	$V_{CE} = -10V, I_{C} = -1mA$	80		_	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	_	4	7	рF
Noise Figure	NF	V_{CE} = -6V, I_{C} = -0.1mA f=1kHz, R_{G} = 10k Ω	_	1.0	10	dB

 $0:70\sim140,$ $Y: 120 \sim 240$, GR: 200~400 Note: hFE Classification

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