TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2 S C 2 7 1 0

FOR AUDIO AMPLIFIER APPLICATIONS

• High DC Current Gain : $h_{FE(1)}=100\sim320$

• Complementary to 2SA1150

MAXIMUM RATINGS (Ta = 25°C)

SYMBOL	RATING	UNIT
V _{CBO}	35	V
v_{CEO}	30	V
$V_{ m EBO}$	5	V
$I_{\mathbf{C}}$	800	mA
$I_{\mathbf{B}}$	160	mA
$P_{\mathbf{C}}$	300	mW
$\mathrm{T_{j}}$	150	$^{\circ}\mathrm{C}$
$\mathrm{T_{stg}}$	-55~150	°C
	V _{CBO} V _{CEO} V _{EBO} I _C I _B P _C T _j	VCBO 35 VCEO 30 VEBO 5 IC 800 IB 160 PC 300 Tj 150

Unit in mm

4.2MAX.

0.55MAX.

1.27,1.27

2.5°

1. EMITTER
2. COLLECTOR
3. BASE

JEDEC

EIAJ

TOSHIBA
2-4E1A

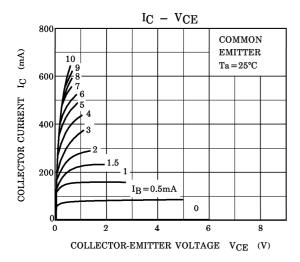
Weight: 0.13g

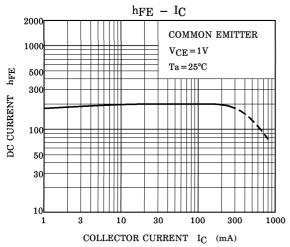
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

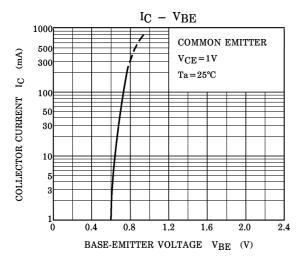
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 35V, I_{E} = 0$	_	_	0.1	μ A
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB}=5V$, $I_{C}=0$	1		0.1	μ A
Collector-Emitter Breakdown Voltage	V _(BR) CEO	$I_{\rm C}=10{ m mA},~I_{\rm B}=0$	30	_	_	V
DC Current Gain	h _{FE (1)} (Note)	$V_{\text{CE}} = 1V$, $I_{\text{C}} = 100 \text{mA}$	100	_	320	
	h _{FE (2)}	$V_{\text{CE}}=1V$, $I_{\text{C}}=700\text{mA}$	35		_	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	$I_{\rm C} = 500 {\rm mA}, \ I_{\rm B} = 20 {\rm mA}$	1	_	0.5	V
Base-Emitter Voltage	$ m v_{BE}$	$V_{CE}=1V, I_{C}=10mA$	0.5		0.8	V
Transition Frequency	$\mathbf{f_{T}}$	$V_{\text{CE}} = 5V, I_{\text{C}} = 10\text{mA}$	_	120	_	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	13		pF

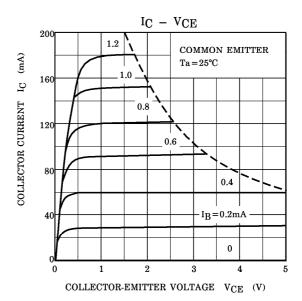
Note : hFE (1) Classification O : 100~200, Y : 160~320

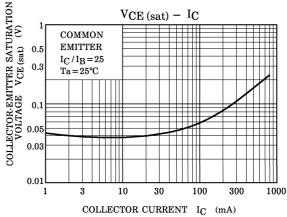
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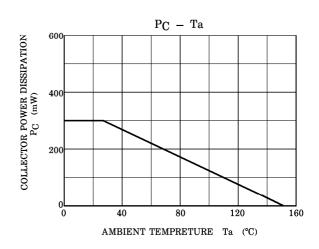












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