TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2 S C 4 2 0 7

AUDIO FREQUENCY GENERAL PURPOSE AMPLIFIER APPLICATIONS.

• Small Package (Dual Type)

• High Voltage and High current

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

• High hFE : $h_{EF} = 120 \sim 700$

• Excellent hee Linearity

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

• Complementary to 2SA1618

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	v_{CBO}	60	V
Collector-Emitter Voltage	v_{CEO}	50	V
Emitter-Base Voltage	$v_{ m EBO}$	5	V
Collector Current	$I_{\mathbf{C}}$	150	mA
Base Current	$I_{\mathbf{B}}$	30	mA
Collector Power Dissipation	PC*	300	mW
Junction Temperature	T_{j}	125	$^{\circ}\mathrm{C}$
Storage Temperature Range	$\mathrm{T}_{\mathrm{stg}}$	-55~125	°C

TOSHIBA 2-3L1A Weight: 0.014g

SMV

JEDEC EIAJ

* Total Rating

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CBO}	$V_{CB} = 60V, I_{E} = 0$	_	_	0.1	μ A
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_{C}=0$	_	_	0.1	μ A
DC Current Gain	hFE (Note)	$V_{CE}=6V, I_{C}=2mA$	120	_	700	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =100mA, I _B =10mA	1	0.1	0.25	V
Transition Frequency	f_{T}	$V_{\text{CE}} = 10V, I_{\text{C}} = 1\text{mA}$	80	_		MHz
Collector Output Capacitance	C _{ob}	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	2	3.5	рF

1

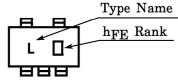
(Note) hFE Classification

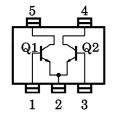
Y(Y): $120\sim240$, GR(G): $200\sim400$, BL(L): $350\sim700$

) Marking Symbol

EQUIVALENT CIRCUIT (TOP VIEW)







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(B1)

(E)

(C2)

+0.2 2.8 - 0.3

1. BASE 1

3. BASE 2

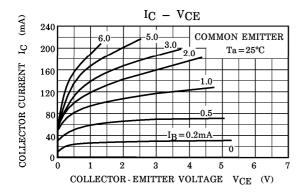
2. EMITTER

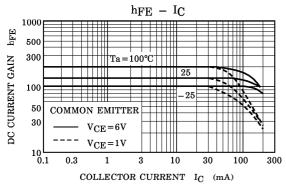
4. COLLECTOR 2

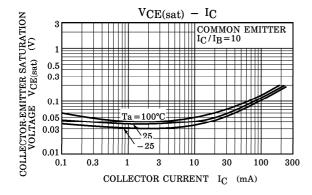
5. COLLECTOR 1

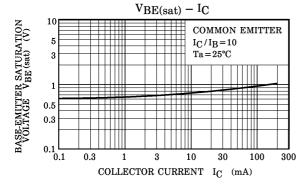
Unit in mm

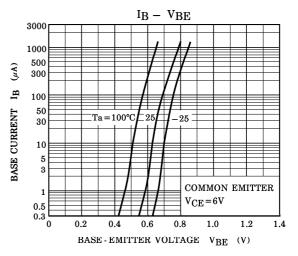
(Q1, Q2 COMMON)

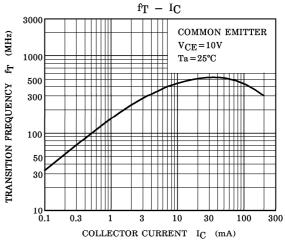


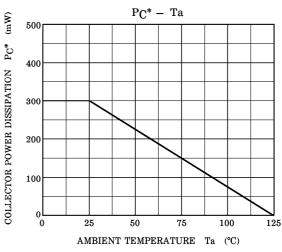












*: Total Rating

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