

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

HN1C01F

AUDIO FREQUENCY GENERAL PURPOSE AMPLIFIER APPLICATIONS.

- Small Package (Dual Type)
- High Voltage and High Current
: $V_{CEO} = 50V$, $I_C = 150mA$ (Max.)
- High h_{FE} : $h_{FE} = 120 \sim 400$
- Excellent h_{FE} Linearity
: $h_{FE}(I_C = 0.1mA) / h_{FE}(I_C = 2mA) = 0.95$ (Typ.)

MAXIMUM RATINGS ($T_a = 25^\circ C$) (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_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	30	mA
Collector Power Dissipation	P_C^*	300	mW
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature Range	T_{stg}	-55~125	$^\circ C$

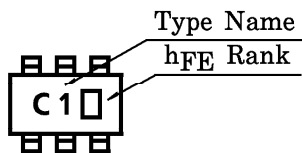
* Total Rating

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$) (Q1, Q2 COMMON)

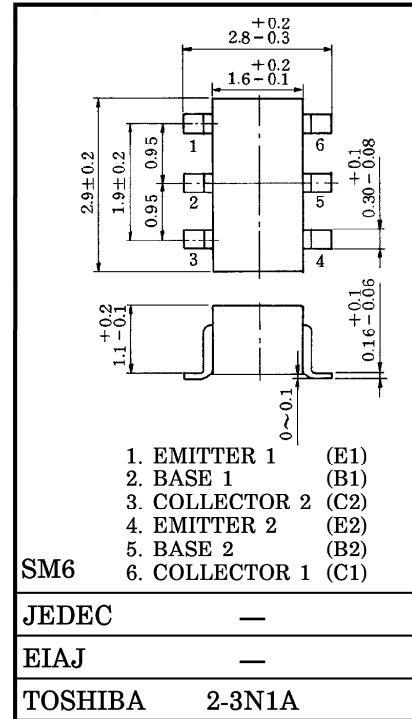
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 60V$, $I_E = 0$	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5V$, $I_C = 0$	—	—	0.1	μA
DC Current Gain	h_{FE} (Note)	$V_{CE} = 6V$, $I_C = 2mA$	120	—	400	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 100mA$, $I_B = 10mA$	—	0.1	0.25	V
Transition Frequency	f_T	$V_{CE} = 10V$, $I_C = 1mA$	80	—	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V$, $I_E = 0$, $f = 1MHz$	—	2	3.5	pF

Note : h_{FE} Classification
Y (Y) : 120~240, GR (G) : 200~400
() Marking Symbol

MARKING

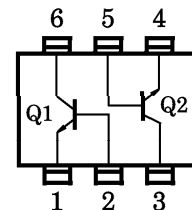


Unit in mm



Weight : 0.015g

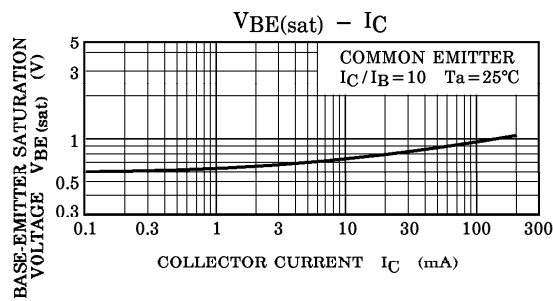
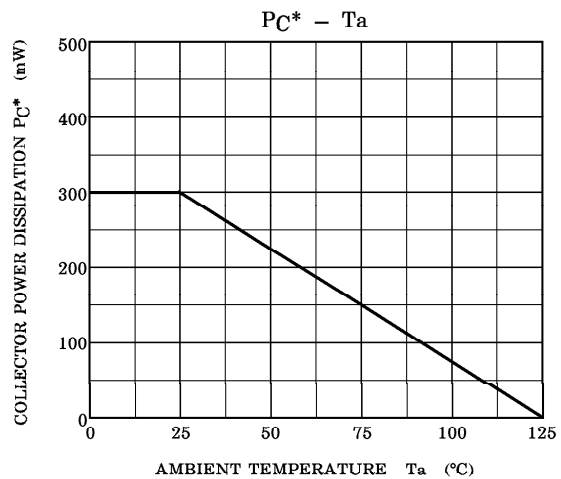
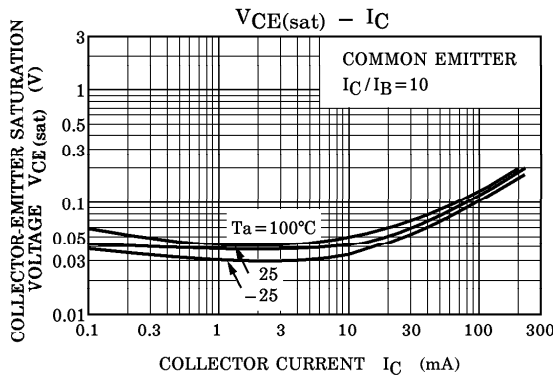
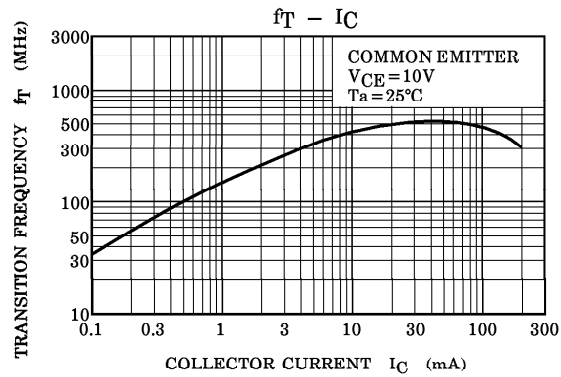
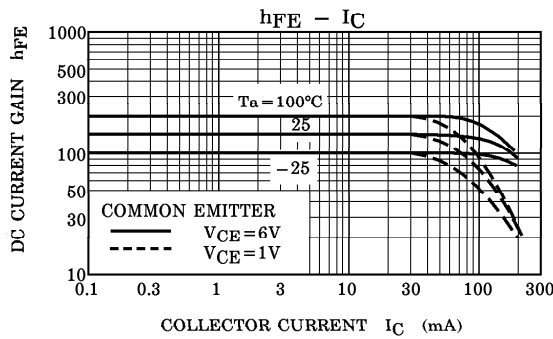
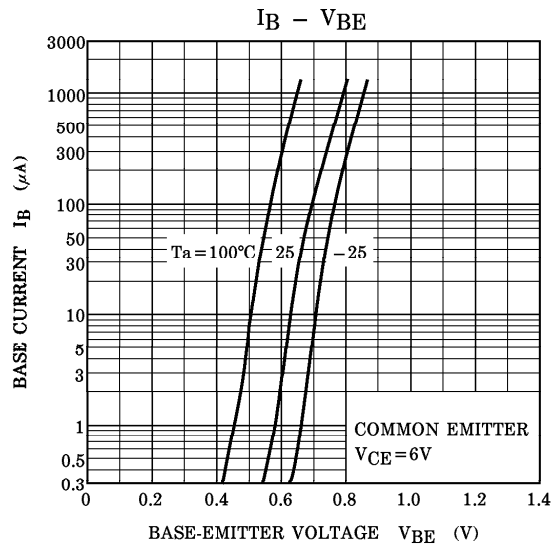
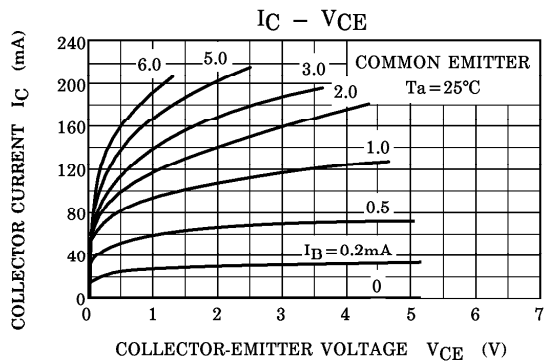
EQUIVALENT CIRCUIT (TOP VIEW)



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(Q1, Q2 COMMON)



* : Total Rating

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