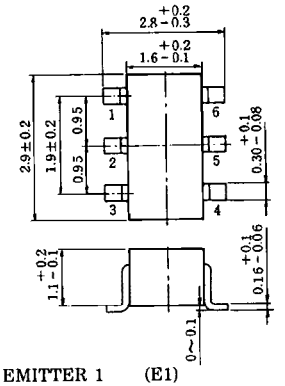
HN1C01F

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} = 120~400
- Excellent h_{FE} Linearity
  : h_{FE} (I_C = 0.1mA) / h_{FE} (I_C = 2mA) = 0.95 (Typ.)

Unit in mm



1. EMITTER 1 (E1)
2. BASE 1 (B1)
3. COLLECTOR 2 (C2)
4. EMITTER 2 (E2)
5. BASE 2 (B2)
6. COLLECTOR 1 (C1)

JEDEC	—
EIAJ	—
TOSHIBA	2-3N1A

Weight : 0.015g

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_{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	°C
Storage Temperature Range	T_{stg}	−55~125	°C

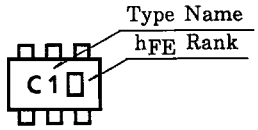
* Total Rating

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

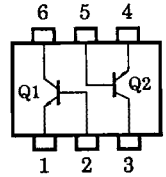
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 60V, I_E = 0	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	—	—	0.1	μA
DC Current Gain	h_{FE} (Note)	V_{CE} = 6V, I_C = 2mA	120	—	400	
Collector-Emitter Saturation Voltage	$V_{CE\ (sat)}$	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

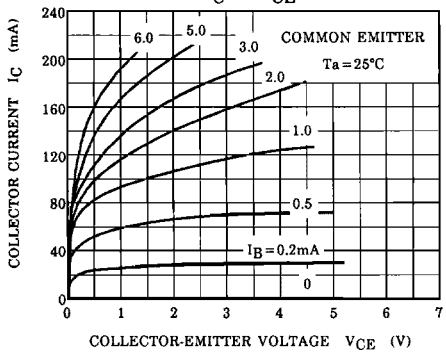


EQUIVALENT CIRCUIT (TOP VIEW)

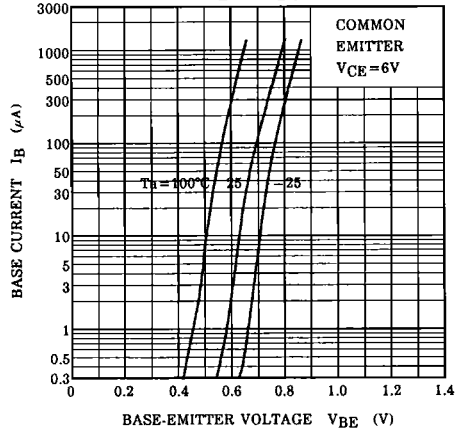


(Q1, Q2 COMMON)

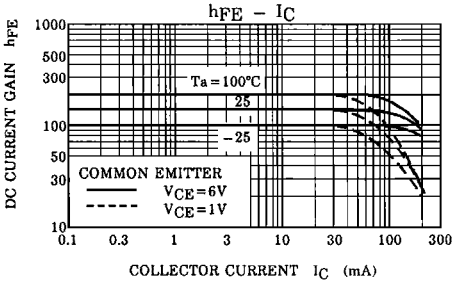
$I_C - V_{CE}$



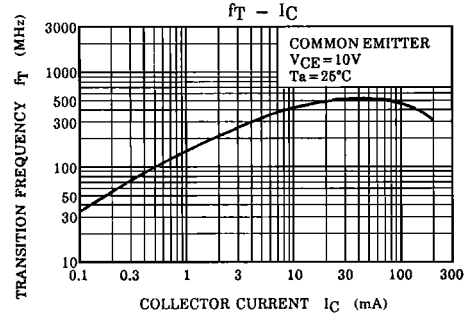
$I_B - V_{BE}$



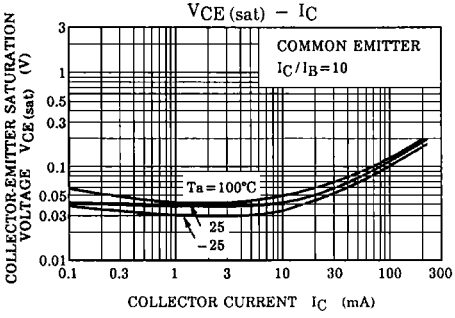
$h_{FE} - I_C$



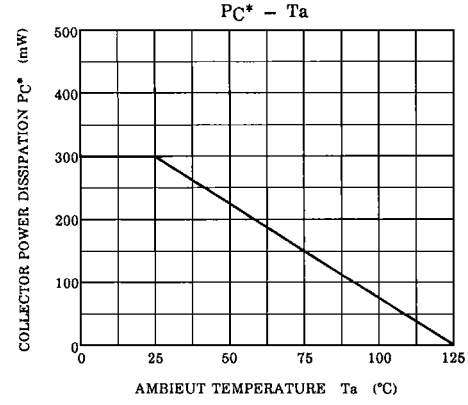
$f_T - I_C$



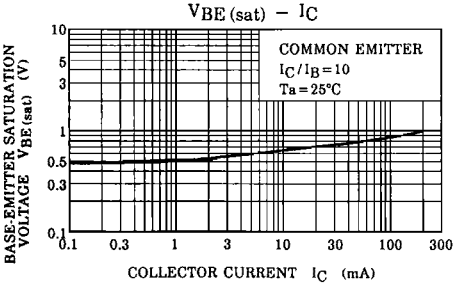
$V_{CE(sat)} - I_C$



$P_C^* - Ta$



$V_{BE(sat)} - I_C$



* : Total Rating