TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT Process)

HN1C01FU

Audio Frequency General Purpose Amplifier Applications

Small package (Dual type)

High voltage and high current

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

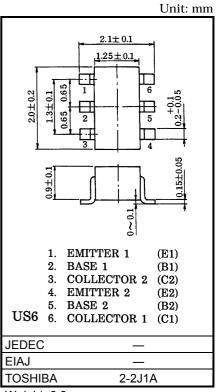
• High hfe: hfe = $120 \sim 400$ Excellent hfe linearity

: h_{FE} ($I_{C} = 0.1 mA$) / h_{FE} ($I_{C} = 2 mA$) = 0.95 (typ.)

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	IC	150	mA
Base current	ΙΒ	30	mA
Collector power dissipation	P _C *	200	mW
Junction temperature	Tj	125	°C
Storage temperature range	T _{stg}	-55~125	°C

Total rating



Weight: 6.8mg

Electrical Characteristics (Ta = 25°C) (Q1,Q2 Common)

Characteristic	Symbol	Test Circuit	Test Condition	Min	Тур.	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

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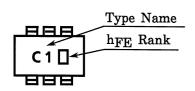
Note: hfe Classification

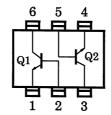
Y (Y): 120~240, GR (G): 200~400

() Marking Symbol

Marking

Equivalent Circuit (Top View)

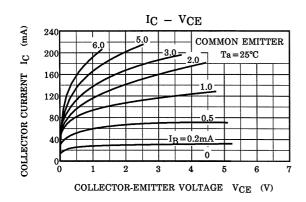


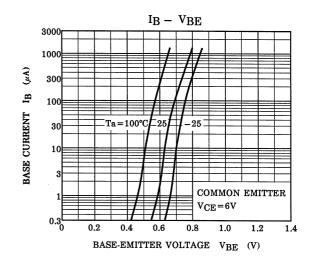


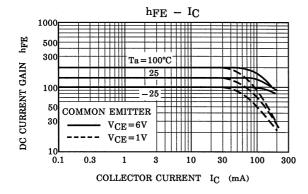
2 2001-06-07

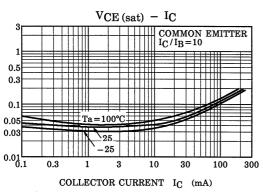
(Q1,Q2 Common)

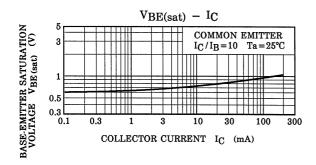
COLLECTOR-EMITTER SATURATION VOLTAGE VCE (sat) (V)

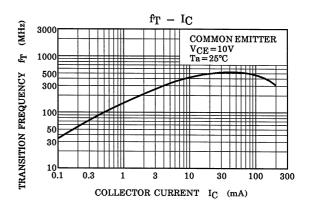


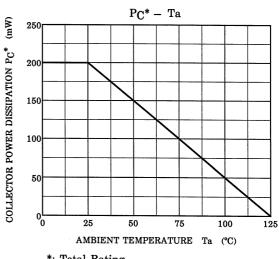












*: Total Rating

3 2001-06-07

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