

# HN1A26FS

## Frequency General-Purpose Amplifier Applications

- Two devices are incorporated into a fine-pitch, small-mold (6-pin) package.
- High voltage:  $V_{CE0} = -50$  V
- High current:  $I_C = -100$  mA (max)
- High  $h_{FE}$  :  $h_{FE} = 120$  to  $400$
- Excellent  $h_{FE}$  linearity  
:  $h_{FE} (I_C = -0.1 \text{ mA})/h_{FE} (I_C = -2 \text{ mA}) = 0.95$  (typ.)

## Absolute Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-50	V
Collector-emitter voltage	$V_{CEO}$	-50	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-100	mA
Base current	$I_B$	-30	mA
Collector power dissipation	$P_C$ (Note 1)	50	mW
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55 to 150	°C

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

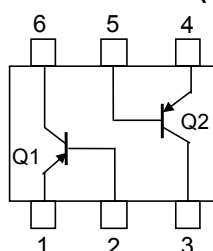
Note 1: Total rating.

## Electrical Characteristics (Ta = 25°C)

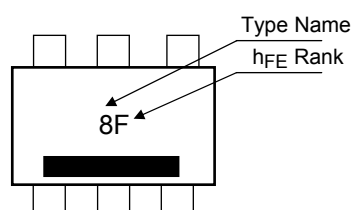
Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -50$ V, $I_E = 0$	—	—	-0.1	μA
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -5$ V, $I_C = 0$	—	—	-0.1	μA
DC current gain	$h_{FE}$ (Note)	$V_{CE} = -6$ V, $I_C = -2$ mA	120	—	400	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100$ mA, $I_B = -10$ mA	—	-0.18	-0.3	V
Transition frequency	$f_T$	$V_{CE} = -10$ V, $I_C = -1$ mA	80	—	—	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10$ V, $I_E = 0$ , $f = 1$ MHz	—	1.6	—	pF

Note:  $h_{FE}$  Classification Y (F): 120 to 140, GR (H): 200 to 400  
( ) Marking symbol

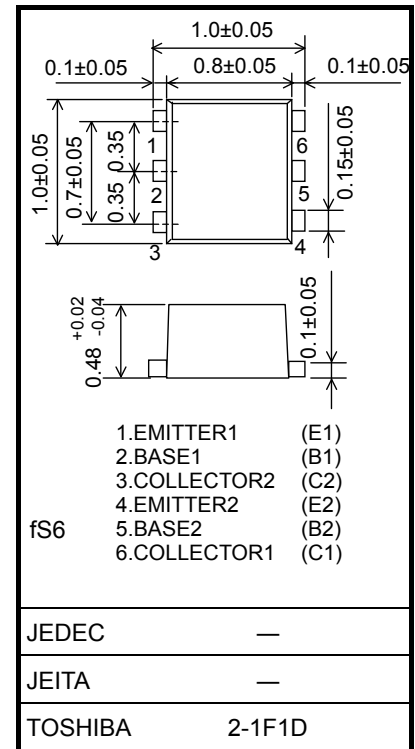
## Equivalent Circuit (top view)



## Marking

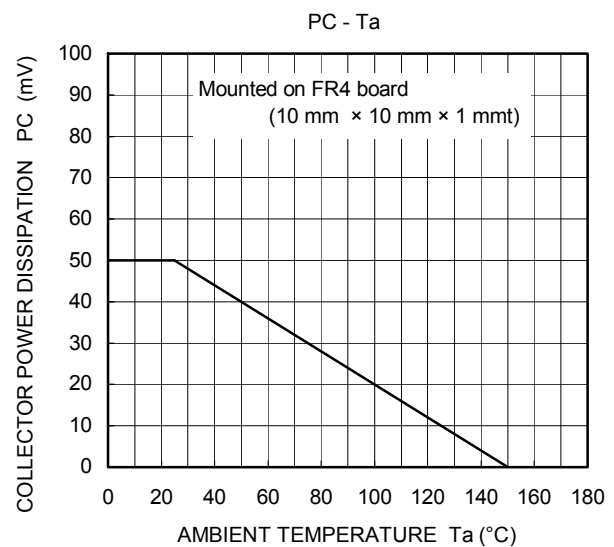
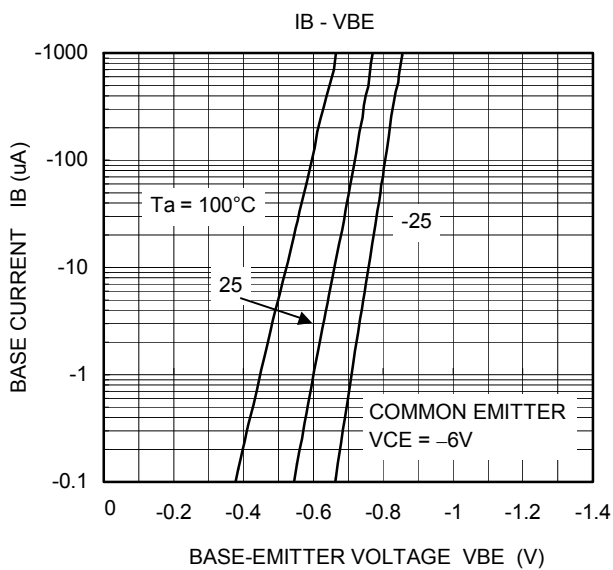
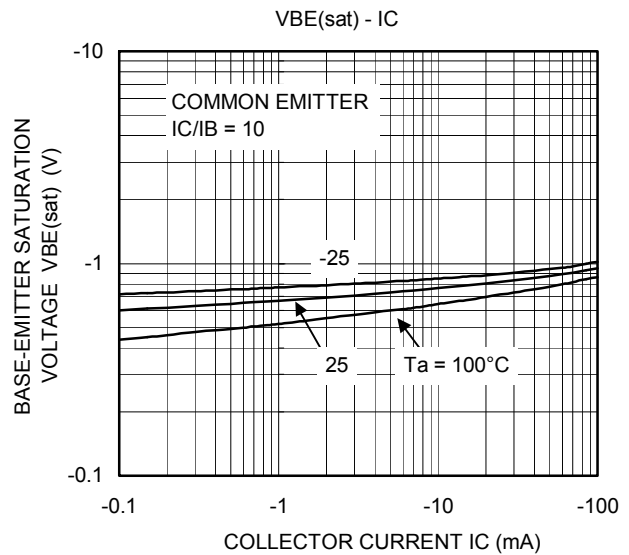
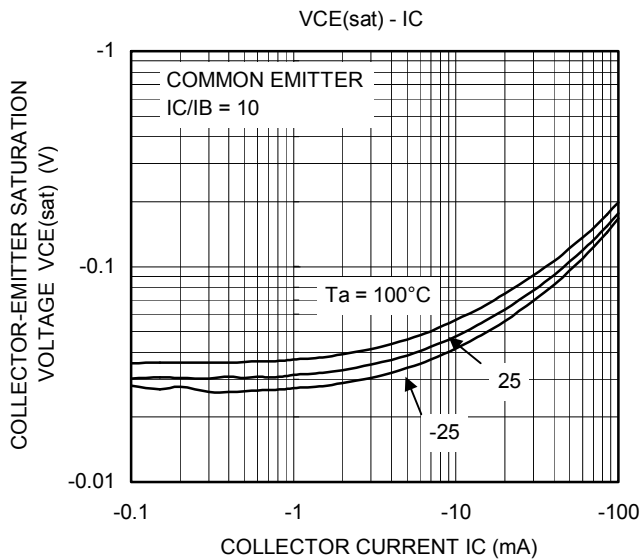
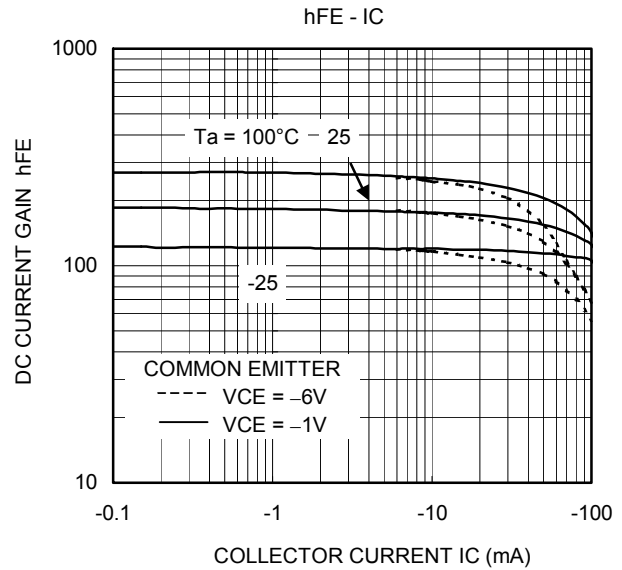
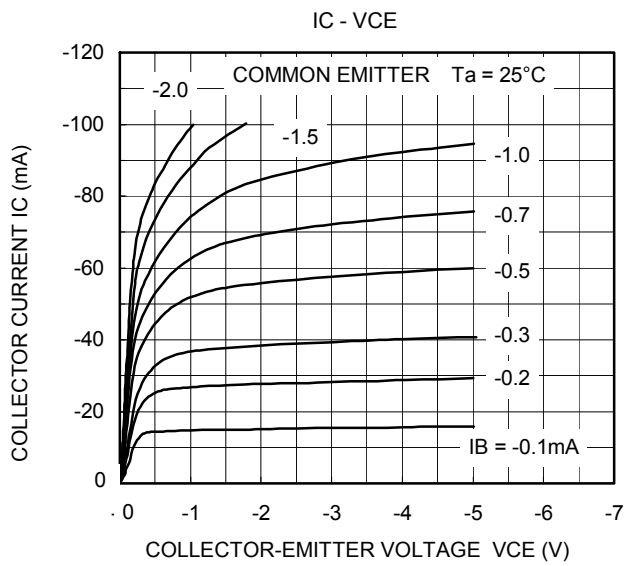


Unit: mm



Weight: 0.001g (typ.)

## Q1, Q2 Common



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