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# 2SB856

Silicon PNP Triple Diffused

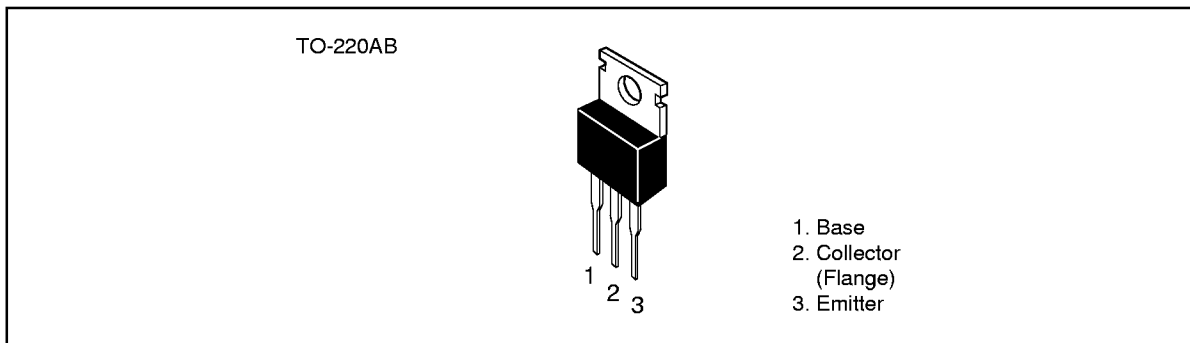
## HITACHI

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### Application

Low frequency power amplifier

### Outline



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

Item	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	-50	V
Collector to emitter voltage	$V_{CEO}$	-50	V
Emitter to base voltage	$V_{EBO}$	-4	V
Collector current	$I_C$	-3	A
Collector power dissipation	$P_C^{*1}$	25	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-45 to +150	°C

Note: 1. Value at  $T_c = 25^\circ\text{C}$

## 2SB856

### Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-50	—	—	V	$I_C = -5 \text{ mA}, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-50	—	—	V	$I_C = -50 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-4	—	—	V	$I_E = -5 \text{ mA}, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	-100	$\mu\text{A}$	$V_{CB} = -20 \text{ V}, I_E = 0$
DC current transfer ratio	$h_{FE1}^{*1}$	35	—	200		$V_{CE} = -4 \text{ V}, I_C = -1 \text{ A}^{*2}$
	$h_{FE2}$	35	—	—		$V_{CE} = -4 \text{ V}, I_C = -0.1 \text{ A}^{*2}$
Base to emitter voltage	$V_{BE}$	—	—	-1.5	V	$V_{CE} = -4 \text{ V}, I_C = -1 \text{ A}^{*2}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-1.2	V	$I_C = -2 \text{ A}, I_B = -0.2 \text{ A}^{*2}$
Gain bandwidth product	$f_T$	—	35	—	MHz	$V_{CE} = -4 \text{ V}, I_C = -0.5 \text{ A}^{*2}$

Notes: 1. The 2SB856 is grouped by  $h_{FE1}$  as follows.

2. Pulse test

A	B	C
35 to 70	60 to 120	100 to 200

