
2SB1028

Silicon PNP Epitaxial

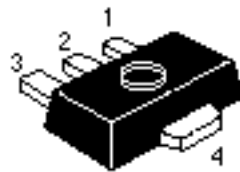
HITACHI

Application

Low frequency power amplifier

Outline

UPAK



- 1. Base
- 2. Collector
- 3. Emitter
- 4. Collector (Flange)

2SB1028

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-180	V
Collector to emitter voltage	V_{CEO}	-160	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-1.5	A
Collector peak current	$i_{C(peak)}^{*1}$	-3	A
Collector power dissipation	P_C^{*2}	1	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

Notes: 1. PW ≤ 10 ms, Duty cycle ≤ 20%

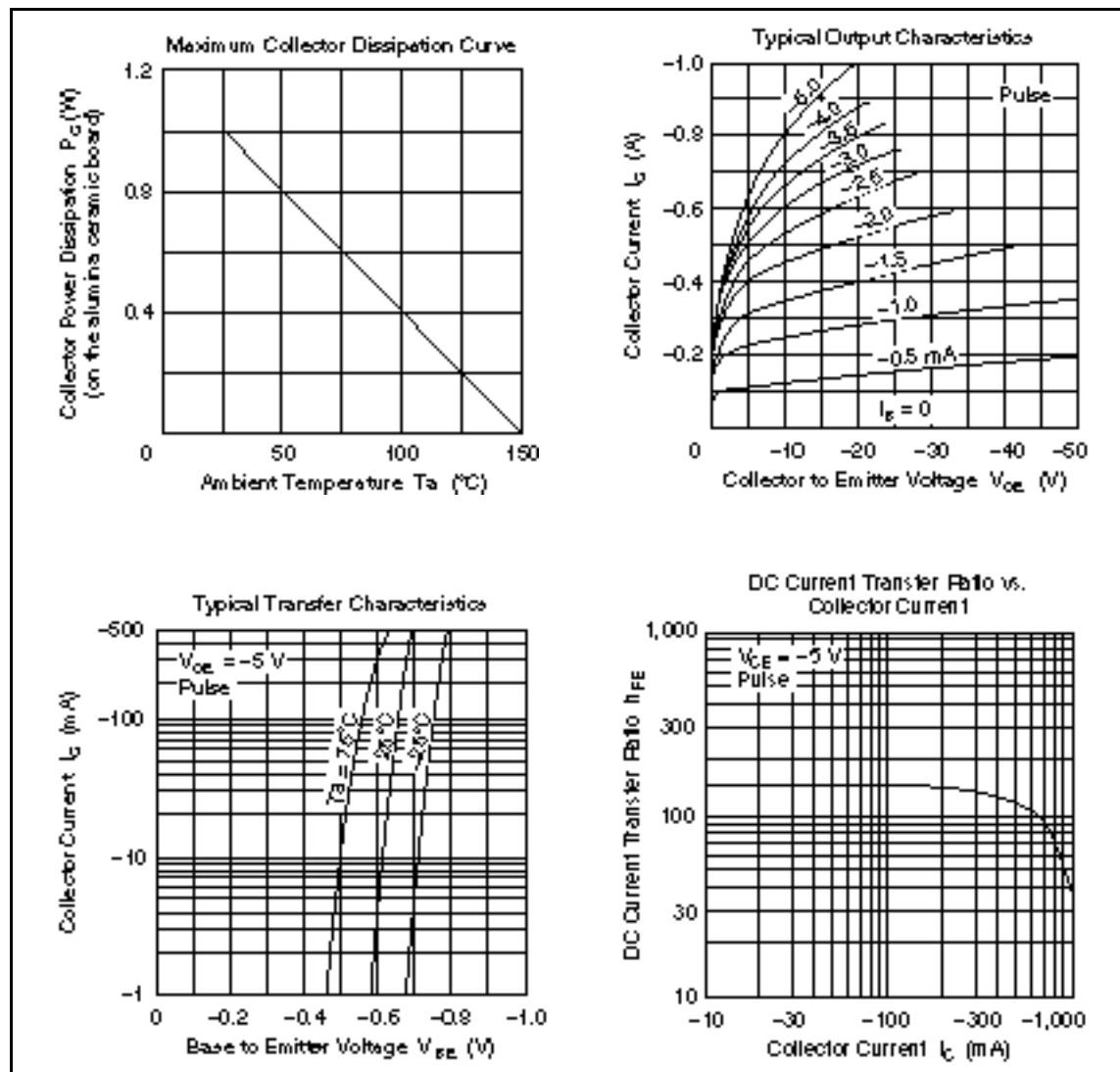
2. Value on the alumina ceramic board (12.5 × 20 × 0.7 mm)

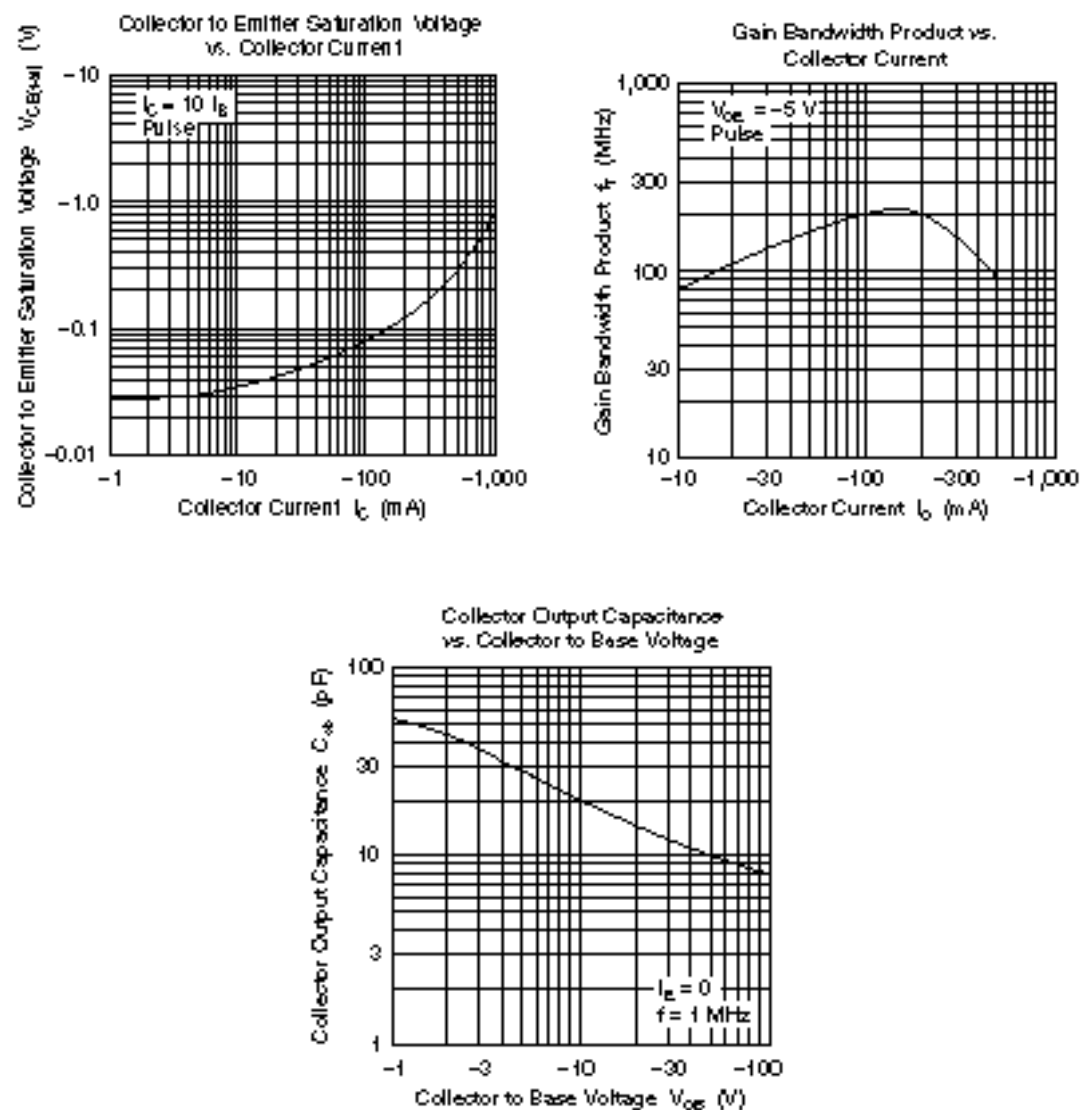
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-180	—	—	V	$I_C = -1 \text{ mA}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-160	—	—	V	$I_C = -10 \text{ mA}$, $R_{BE} = \bullet$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5	—	—	V	$I_E = -1 \text{ mA}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-10	μA	$V_{CB} = -160 \text{ V}$, $I_E = 0$
DC current transfer ratio	h_{FE1}^{*1}	60	—	200		$V_{CE} = -5 \text{ V}$, $I_C = -0.15 \text{ A}$, pulse
	h_{FE2}	30	—	—		$V_{CE} = -5 \text{ V}$, $I_C = -0.5 \text{ A}$, pulse
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-1.0	V	$I_C = -0.5 \text{ A}$, $I_B = -50 \text{ mA}$, Pulse
Base to emitter voltage	V_{BE}	—	—	-0.9	V	$V_{CE} = -5 \text{ V}$, $I_C = -0.15 \text{ A}$, pulse

Note: 1. The 2SB1028 is grouped by h_{FE1} as follows.

Mark	EL	EM
h_{FE1}	60 to 120	100 to 200





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