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# 2SB1028

Silicon PNP Epitaxial

# HITACHI

ADE-208-1039 (Z)

1st. Edition

Mar. 2001

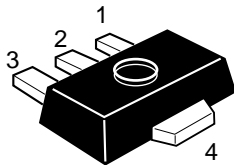
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## Application

Low frequency power amplifier

## Outline

UPAK



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

## 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	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

Notes: 1.  $PW \leq 10$  ms, Duty cycle  $\leq 20\%$

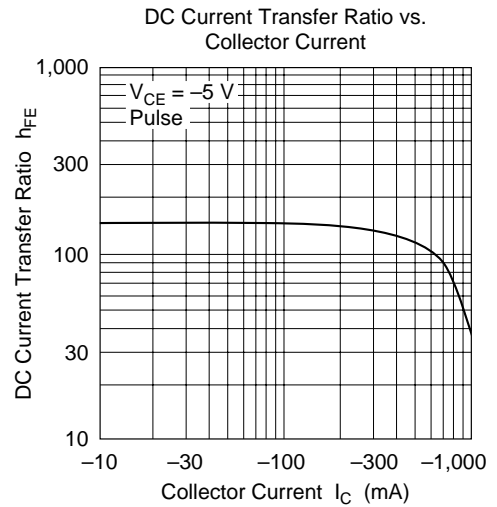
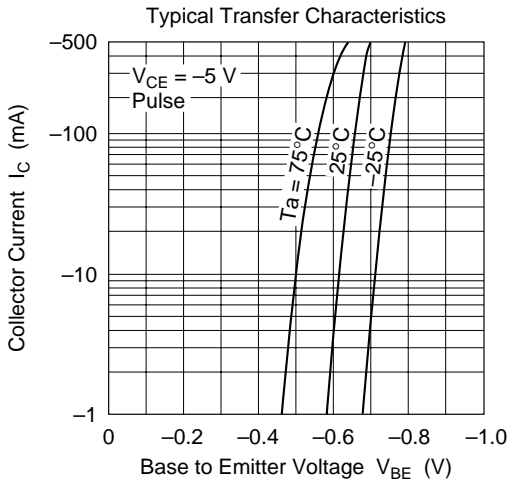
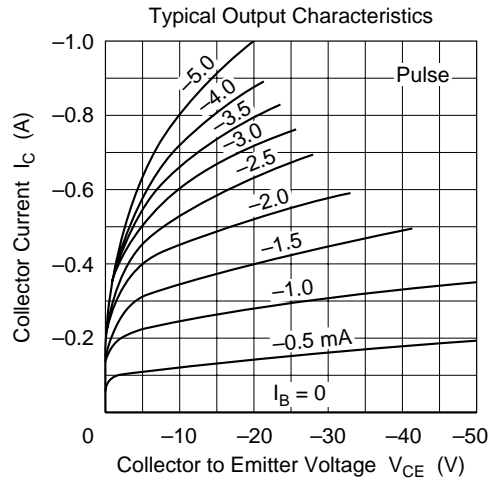
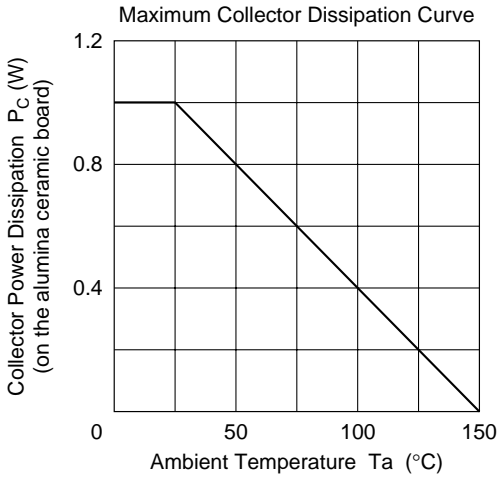
2. Value on the alumina ceramic board (12.5 × 20 × 0.7 mm)

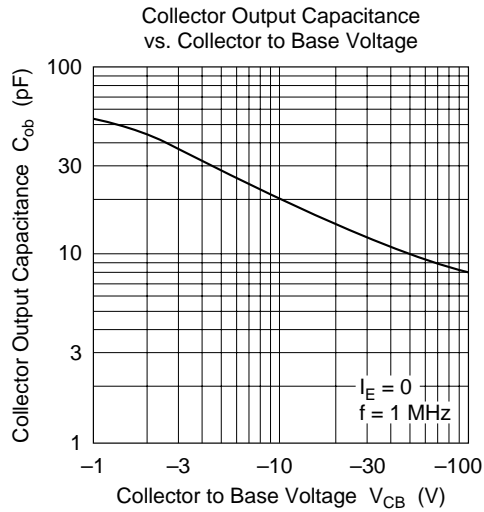
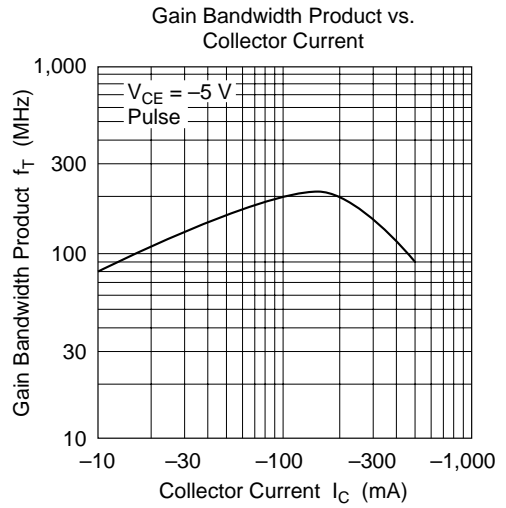
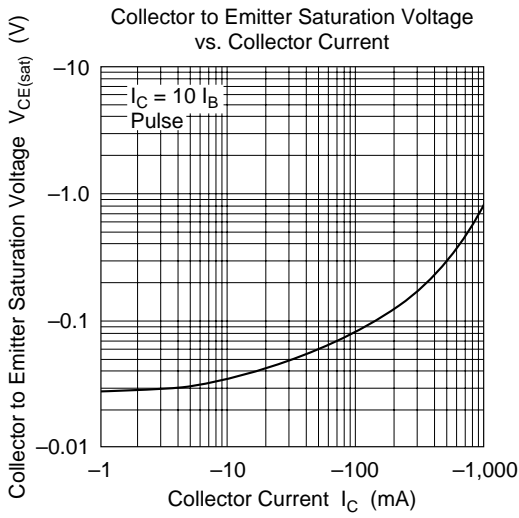
## Electrical Characteristics (Ta = 25°C)

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

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

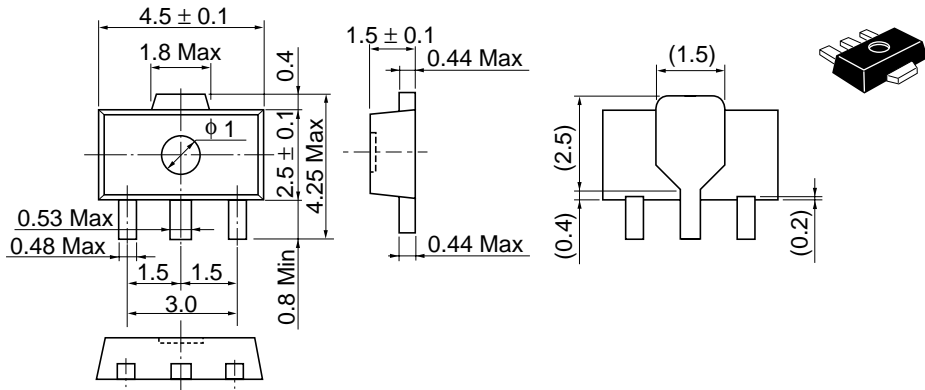
Mark	EL	EM
$h_{FE1}$	60 to 120	100 to 200





Package Dimensions

As of January, 2001  
Unit: mm



Hitachi Code	UPAK
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.050 g

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