
2SB1048

Silicon PNP Epitaxial, Darlington

HITACHI

ADE-208-1040 (Z)

1st. Edition

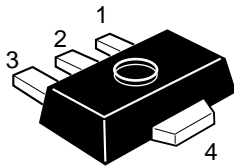
Mar. 2001

Application

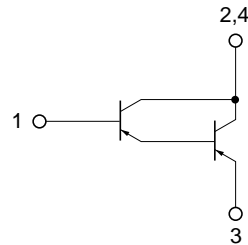
High gain amplifier

Outline

UPAK



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



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

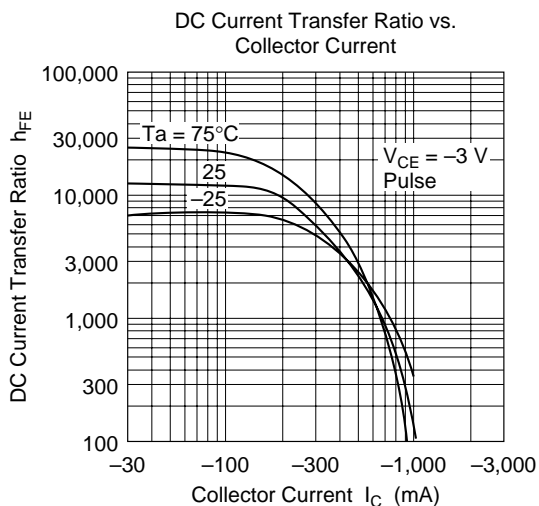
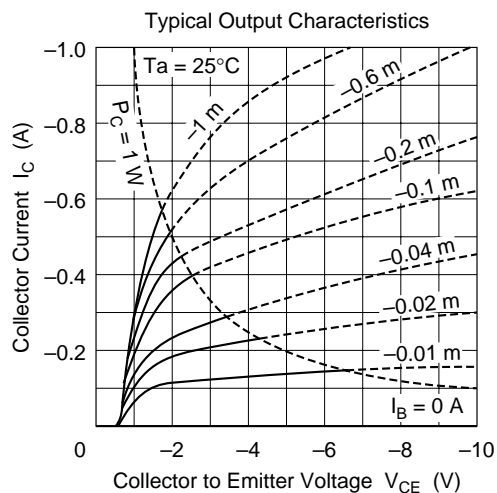
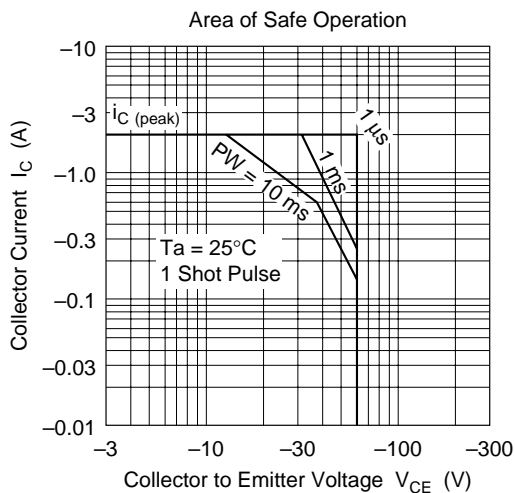
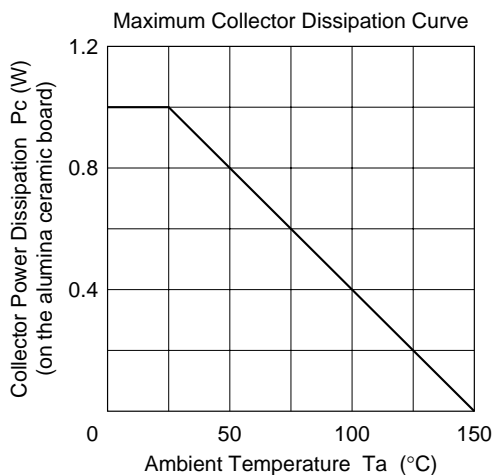
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-60	V
Collector to emitter voltage	V_{CEO}	-60	V
Emitter to base voltage	V_{EBO}	-7	V
Collector current	I_{C}	-1	A
Collector peak current	$i_{\text{C(peak)}}^{*1}$	-2	A
Collector power dissipation	P_{C}^{*2}	1	W
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

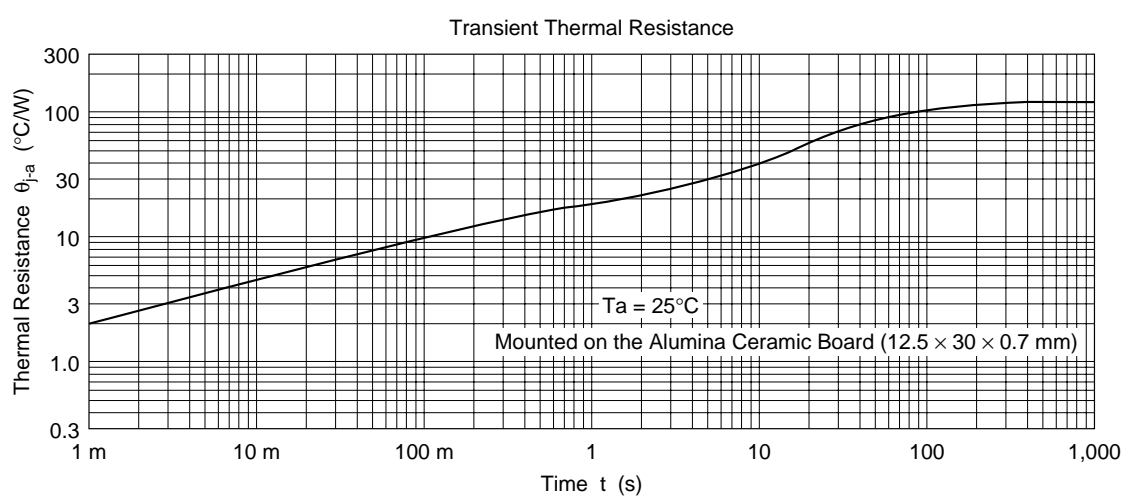
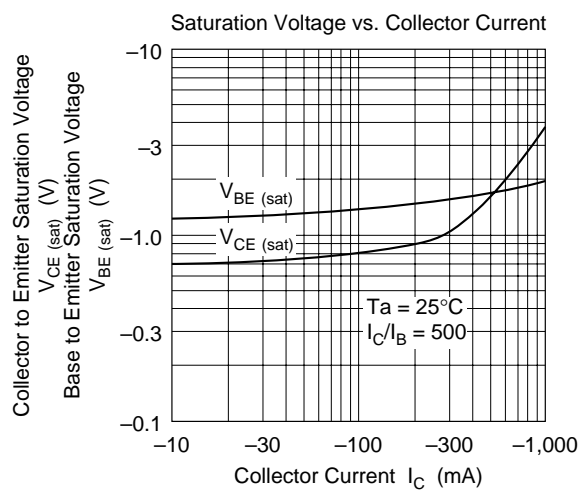
Notes: 1. $PW \leq 10 \text{ ms}$, Duty cycle $\leq 20\%$ 2. Value on the alumina ceramic board ($12.5 \times 30 \times 0.7 \text{ mm}$)**Electrical Characteristics** ($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	-60	—	—	V	$I_{\text{C}} = -10 \mu\text{A}$, $I_{\text{E}} = 0$
Collector to emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	-60	—	—	V	$I_{\text{C}} = -1 \text{ mA}$, $R_{\text{BE}} = \infty$
Collector cutoff current	I_{CBO}	—	—	-10	μA	$V_{\text{CB}} = -60 \text{ V}$, $I_{\text{E}} = 0$
Emitter cutoff current	I_{EBO}	—	—	-10	μA	$V_{\text{EB}} = -7 \text{ V}$, $I_{\text{E}} = 0$
DC current transfer ratio	h_{FE}	2000	—	100000		$V_{\text{CE}} = -3 \text{ V}$, $I_{\text{C}} = -500 \text{ mA}^{*1}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	—	—	-2.0	V	$I_{\text{C}} = -500 \text{ mA}$, $I_{\text{B}} = -1 \text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{\text{BE(sat)}}$	—	—	-2.0	V	$I_{\text{C}} = -500 \text{ mA}$, $I_{\text{B}} = -1 \text{ mA}^{*1}$

Notes: 1. Pulse test

2. Marking is "BT"

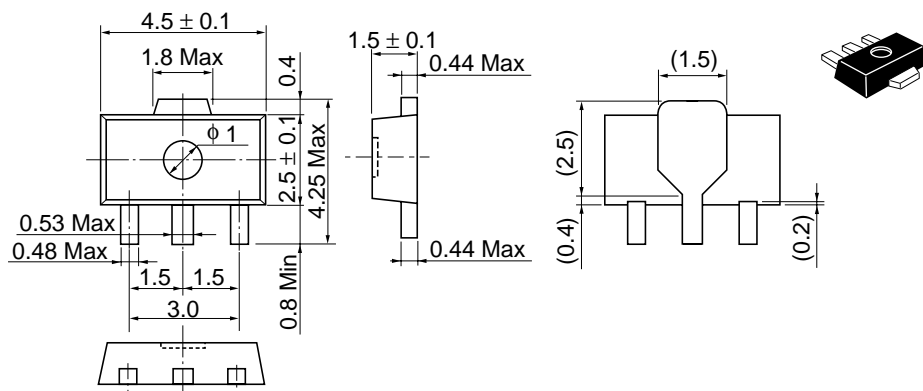




Package Dimensions

As of January, 2001

Unit: mm



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

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