

2SD1366A

Silicon NPN Epitaxial

RENESAS

ADE-208-1146 (Z)

1st. Edition

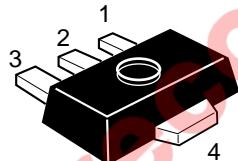
Mar. 2001

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}	30	V
Collector to emitter voltage	V _{CEO}	25	V
Emitter to base voltage	V _{EBO}	5	V
Collector current	I _C	1	A
Collector peak current	i _{C(peak)} ^{*1}	1.5	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 ≤ 10 ms, Duty cycle ≤ 20%.
 2. Value on the alumina ceramic board (12.5 × 20 × 0.7 mm)

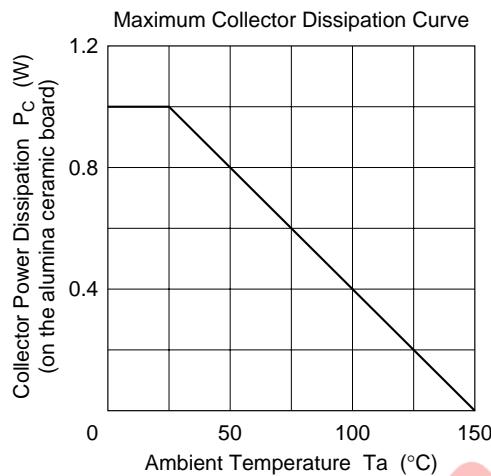
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	V _{(BR)CBO}	30	—	—	V	I _C = 10 μA, I _E = 0
Collector to emitter breakdown voltage	V _{(BR)CEO}	25	—	—	V	I _C = 1 mA, R _{BE} = ∞
Emitter to base breakdown voltage	V _{(BR)EBO}	5	—	—	V	I _E = 10 μA, I _C = 0
Collector cutoff current	I _{CBO}	—	—	0.1	μA	V _{CB} = 20 V, I _E = 0
Emitter cutoff current	I _{EBO}	—	—	0.1	μA	V _{EB} = 4 V, I _C = 0
DC current transfer ratio	h _{FE} ^{*1}	85	—	240		V _{CE} = 2 V, I _C = 0.5 A, Pulse
Collector to emitter saturation voltage	V _{CE(sat)}	—	0.15	0.3	V	I _C = 0.8 A, I _B = 0.08 A, Pulse
Base to emitter saturation voltage	V _{BE(sat)}	—	0.9	1.0	V	I _C = 0.8 A, I _B = 0.08 A, Pulse
Gain bandwidth product	f _T	—	240	—	MHz	V _{CE} = 2 V, I _C = 0.5 A, Pulse
Collector output capacitance	C _{ob}	—	22	—	pF	V _{CB} = 10 V, I _E = 0, f = 1 MHz

Note: 1. The 2SD1366A is grouped by h_{FE} as follows.

Mark	AC	AD
h _{FE}	85 to 170	120 to 240

See characteristic curves of 2SD1366.

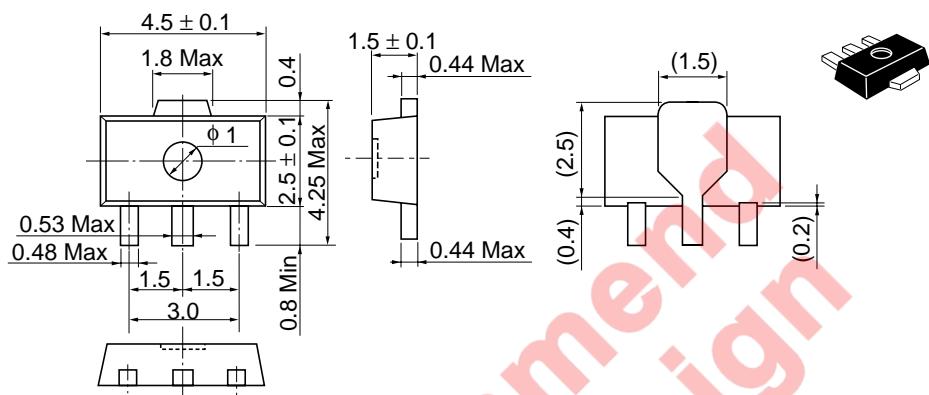


Not recommended
for new design

Package Dimensions

As of January, 2001

Unit: mm



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

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