
2SA1171

Silicon PNP Epitaxial

HITACHI

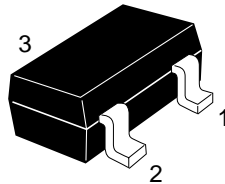
ADE-208-1010 (Z)
1st. Edition
Mar. 2001

Application

Low frequency small signal amplifier

Outline

MPAK



1. Emitter
2. Base
3. Collector

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

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-90	V
Collector to emitter voltage	V_{CEO}	-90	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_{C}	-50	mA
Collector power dissipation	P_{C}	150	mW
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

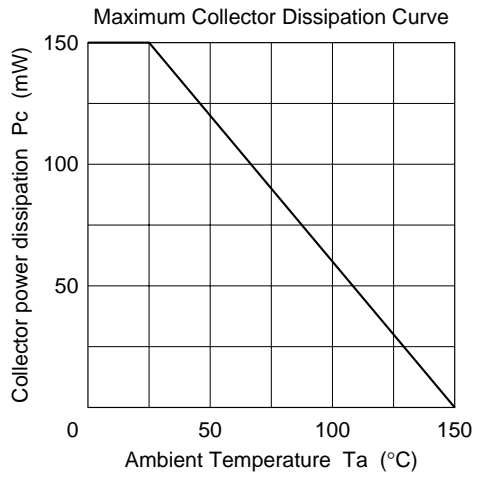
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	-90	—	—	V	$I_{\text{C}} = -1 \text{ mA}$, $R_{\text{BE}} = \infty$
Collector cutoff current	I_{CBO}	—	—	-0.5	μA	$V_{\text{CB}} = -75 \text{ V}$, $I_{\text{E}} = 0$
DC current transfer ratio	h_{FE}^{*1}	250	—	800		$V_{\text{CE}} = -12 \text{ V}$, $I_{\text{C}} = -2 \text{ mA}$
Base to emitter voltage	V_{BE}	—	—	-0.75	V	$V_{\text{CE}} = -12 \text{ V}$, $I_{\text{C}} = -2 \text{ mA}$
Collector to emitter saturation voltage	$V_{\text{CE}(\text{sat})}$	—	—	-0.5	V	$I_{\text{C}} = -10 \text{ mA}$, $I_{\text{B}} = -1 \text{ mA}$
Gain bandwidth product	f_{T}	—	200	—	MHz	$V_{\text{CE}} = -12 \text{ V}$, $I_{\text{C}} = -2 \text{ mA}$
Collector output capacitance	C_{ob}	—	1.6	—	pF	$V_{\text{CB}} = -25 \text{ V}$, $I_{\text{E}} = 0$, $f = 1 \text{ MHz}$

Note: 1. The 2SA1171 is grouped by h_{FE} as follows.

Grade	D	E
Mark	PD	PE
h_{FE}	250 to 500	400 to 800

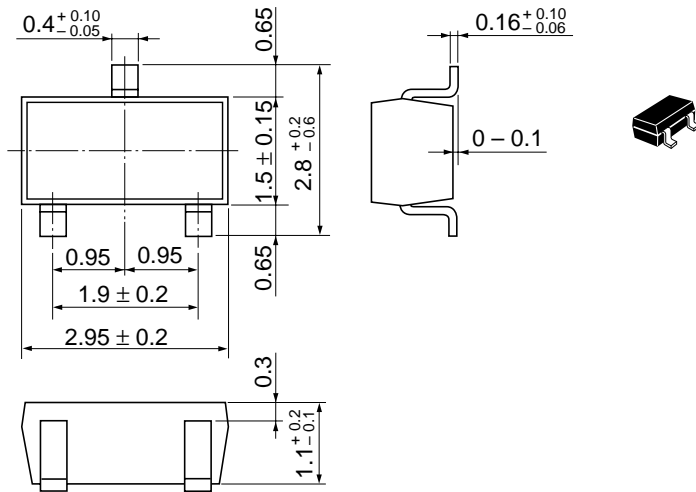
See characteristic curves of 2SA872.



Package Dimensions

As of January, 2001

Unit: mm



Hitachi Code	MPAK
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.011 g

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