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# 2SD1101

Silicon NPN Epitaxial

# HITACHI

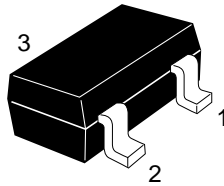
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## Application

- Low frequency amplifier
- Complementary pair with 2SB831

## Outline

MPAK



1. Emitter
2. Base
3. Collector

# 2SD1101

## Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	25	V
Collector to emitter voltage	$V_{CEO}$	20	V
Emitter to base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	0.7	A
Collector peak current	$i_{C(\text{peak})}$	1	A
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{\text{stg}}$	-55 to +150	°C

## Electrical Characteristics (Ta = 25°C)

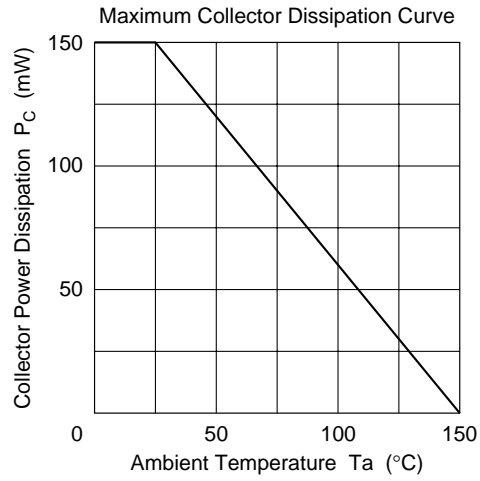
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	25	—	—	V	$I_C = 10 \mu\text{A}, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	20	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10 \mu\text{A}, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	1.0	$\mu\text{A}$	$V_{CB} = 20 \text{ V}, I_E = 0$
DC current transfer ratio	$h_{FE}^{*1}$	85	—	240		$V_{CE} = 1 \text{ V}, I_C = 0.15 \text{ A}^{*2}$
Collector to emitter saturation voltage	$V_{CE(\text{sat})}$	—	—	0.5	V	$I_C = 0.5 \text{ A}, I_B = 0.05 \text{ A}^{*2}$
Base to emitter voltage	$V_{BE}$	—	—	1.0	V	$V_{CE} = 1 \text{ V}, I_C = 0.15 \text{ A}^{*2}$

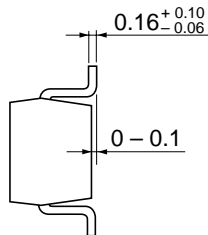
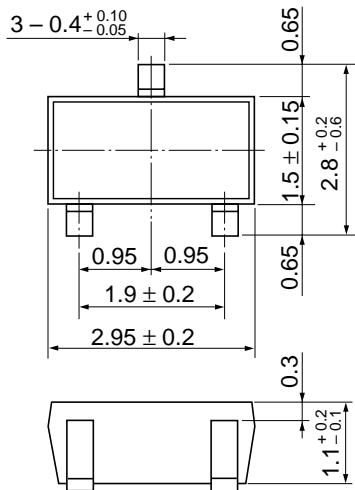
Notes: 1. The 2SD1101 is grouped by  $h_{FE}$  as follows.

2. Pulse test

Grade	B	C
Mark	AB	AC
$h_{FE}$	85 to 170	120 to 240

See characteristic curves of 2SD467.





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

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