
2SD1101

Silicon NPN Epitaxial

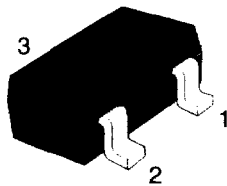
HITACHI

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	$i_{C(peak)}$	1	A
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{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	$I_C = 10 \mu A, I_E = 0$
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	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	1.0	μA	$V_{CB} = 20 \text{ V}, I_E = 0$
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	$V_{CE(sat)}$	—	—	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.

