

## Silicon PNP Power Transistors

## BD231

## DESCRIPTION

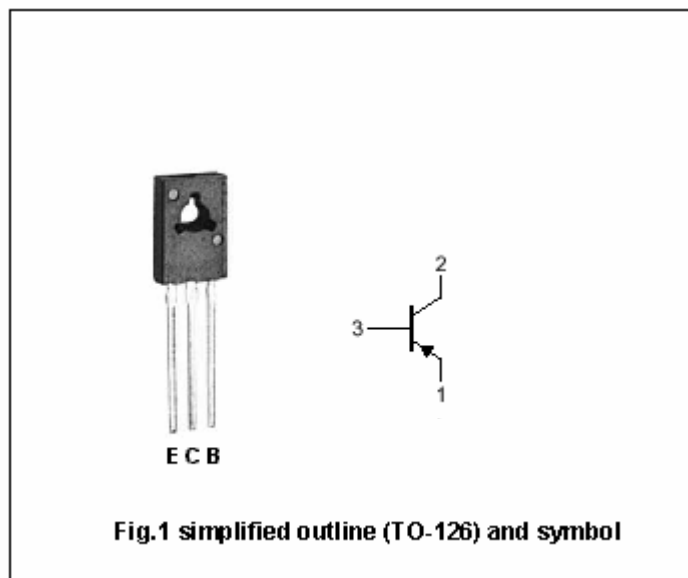
- With TO-126 package
- Complement to type BD230
- High current (Max:-1.5A)
- Low voltage (Max: -80V)

## APPLICATIONS

- Drive stage in TV circuits

## PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base



## Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-100	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-80	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current (DC)		-1.5	A
I <sub>CM</sub>	Collector current-Peak		-3	A
I <sub>BM</sub>	Base current-Peak		-1	A
P <sub>D</sub>	Total power dissipation	T <sub>mb</sub> ≤62℃	12.5	W
P <sub>D</sub>	Total power dissipation	T <sub>C</sub> =25℃	10	W
T <sub>j</sub>	Junction temperature		150	℃
T <sub>stg</sub>	Storage temperature		-65~150	℃
T <sub>amb</sub>	Operating ambient temperature		-65~150	℃

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## CHARACTERISTICS

T<sub>j</sub>=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-1A; I <sub>B</sub> =-0.1A			-0.8	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-1A; I <sub>B</sub> =-0.1A			-1.1	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-1A; V <sub>CE</sub> =-2V			-1.3	V
I <sub>CB0</sub>	Collector cut-off current	V <sub>CB</sub> =-30V; I <sub>E</sub> =0			-0.1	μA
I <sub>EB0</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-0.1	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-5mA; V <sub>CE</sub> =-2V	40			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-150mA; V <sub>CE</sub> =-2V	40		250	
h <sub>FE-3</sub>	DC current gain	I <sub>C</sub> =-1A; V <sub>CE</sub> =-2V	25			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-50mA; V <sub>CE</sub> =-5V		50		MHz

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PACKAGE OUTLINE

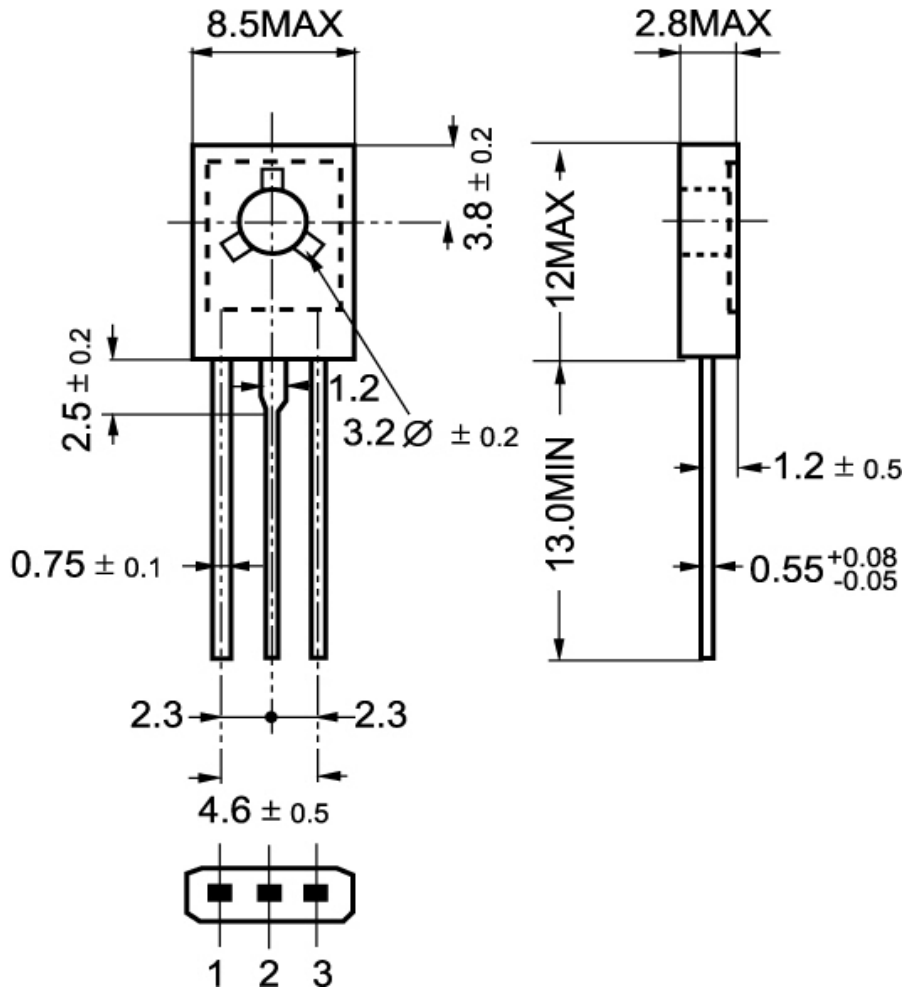


Fig.2 Outline dimensions