

**Silicon NPN Power Transistors****BD230****DESCRIPTION**

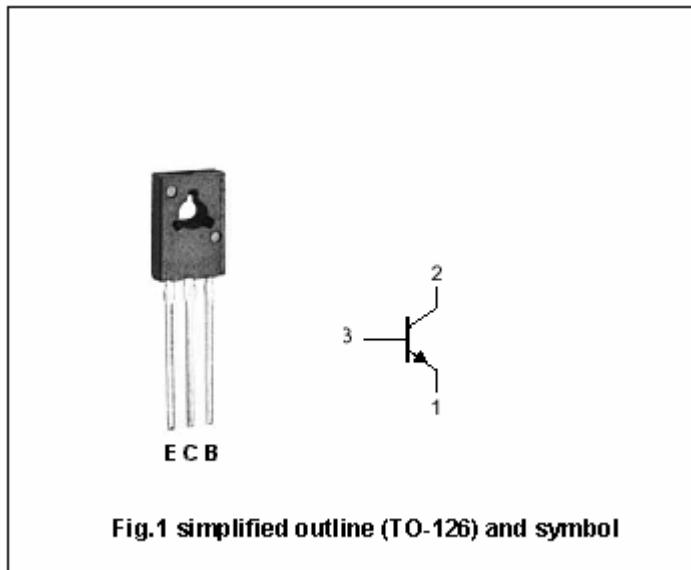
- With TO-126 package
- Complement to type BD231
- High current (Max:1.5A)
- Low voltage (Max: 80V)

**APPLICATIONS**

- Drive stage in TV circuits

**PINNING**

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

**Absolute maximum ratings ( $T_a=25^\circ\text{C}$ )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	100	V
$V_{CEO}$	Collector-emitter voltage	Open base	80	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current (DC)		1.5	A
$I_{CM}$	Collector current-Peak		3	A
$I_{BM}$	Base current-Peak		1	A
$P_D$	Total power dissipation	$T_{mb} \leq 62^\circ\text{C}$	12.5	W
		$T_C = 25^\circ\text{C}$	10	
$T_j$	Junction temperature		150	°C
$T_{stg}$	Storage temperature		-65~150	°C
$T_{amb}$	Operating ambient temperature		-65~150	°C

**Silicon NPN Power Transistors****BD230****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			1.2	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =1A ; V <sub>CE</sub> =2V			1.3	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =30V; I <sub>E</sub> =0			0.1	µA
I <sub>EBO</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		125		MHz

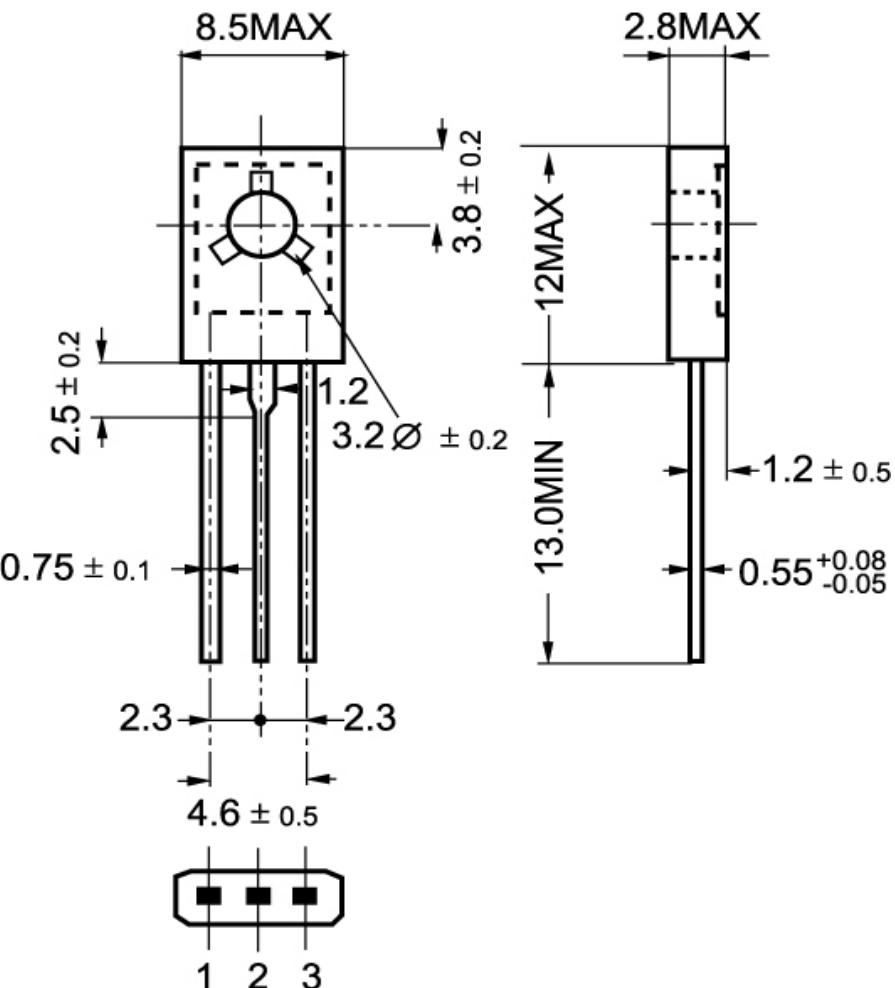
**Silicon NPN Power Transistors****BD230****PACKAGE OUTLINE**

Fig.2 Outline dimensions