

**Silicon NPN Power Transistors**

**2SC3231**

**DESCRIPTION**

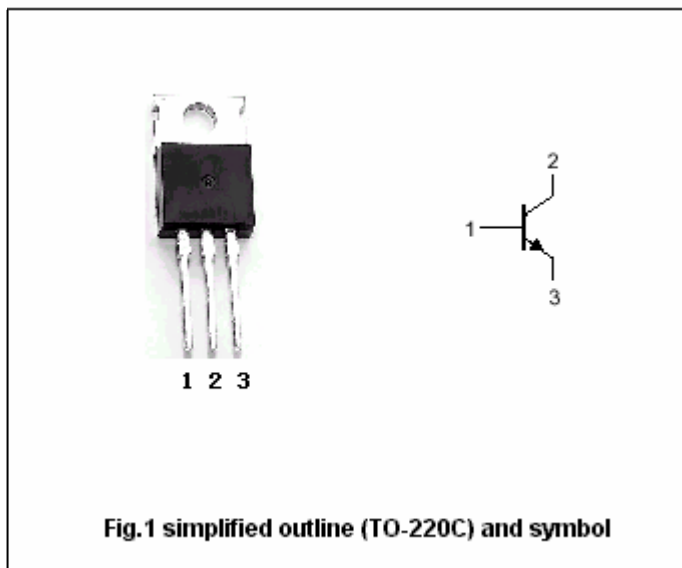
- With TO-220 package
- Wide area of safe operation

**APPLICATIONS**

- Switching regulators
- General purpose power amplifiers
- TV horizontal output applications

**PINNING**

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



**Absolute maximum ratings (Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	200	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	150	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current (DC)		4	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	40	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =25mA ; I <sub>B</sub> =0	150			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =1mA ; I <sub>E</sub> =0	200			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA ; I <sub>C</sub> =0	7			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4A; I <sub>B</sub> =0.4A			1.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =200V; I <sub>E</sub> =0			100	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7V; I <sub>C</sub> =0			100	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V	30		150	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =5V		8		MHz

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PACKAGE OUTLINE

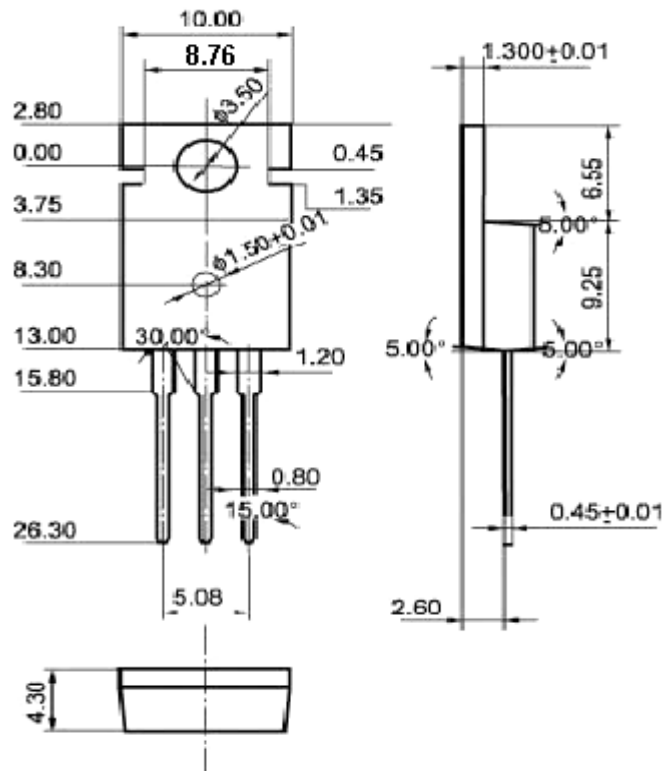


Fig.2 outline dimensions (unindicated tolerance: ±0.10 mm)