

**Silicon PNP Power Transistors**

**BD242/A/B/C**

**DESCRIPTION**

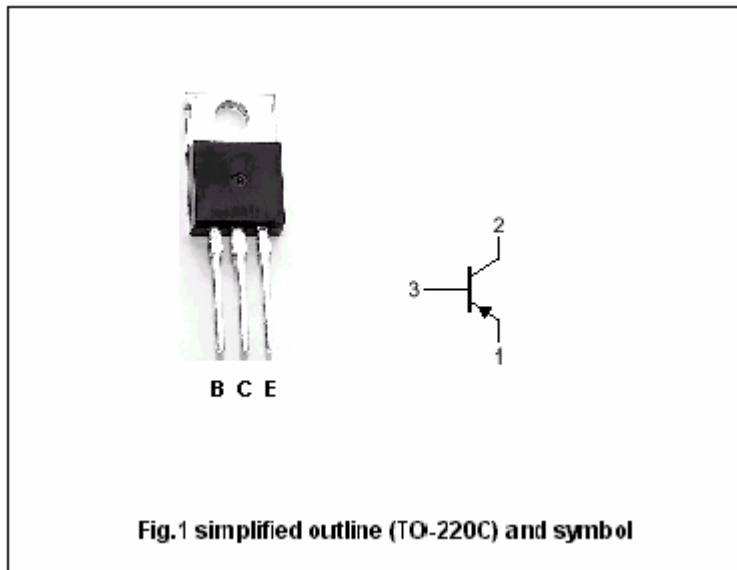
- With TO-220C package
- Complement to type BD241/A/B/C

**APPLICATIONS**

- For medium power linear and switching applications

**PINNING**

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



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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	BD242	-55	V
		BD242A	-70	
		BD242B	-90	
		BD242C	-115	
V <sub>CEO</sub>	Collector-emitter voltage	BD242	-45	V
		BD242A	-60	
		BD242B	-80	
		BD242C	-100	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-3	A
I <sub>CM</sub>	Collector current-peak		-5	A
I <sub>B</sub>	Base current		-1	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		-65~150	°C

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	BD242	-45			V	
		BD242A	-60				
		BD242B	-80				
		BD242C	-100				
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-3A; I <sub>B</sub> =-0.6 A			-1.2	V	
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-3A ; V <sub>CE</sub> =-4V			-1.8	V	
I <sub>CEO</sub>	Collector cut-off current	BD242/A	V <sub>CE</sub> =-30V; I <sub>B</sub> =0			-0.3	mA
		BD242B/C	V <sub>CE</sub> =-60V; I <sub>B</sub> =0				
I <sub>CES</sub>	Collector cut-off current	BD242	V <sub>CE</sub> =-45V; V <sub>BE</sub> =0			-0.2	mA
		BD242A	V <sub>CE</sub> =-60V; V <sub>BE</sub> =0				
		BD242B	V <sub>CE</sub> =-80V; V <sub>BE</sub> =0				
		BD242C	V <sub>CE</sub> =-100V; V <sub>BE</sub> =0				
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-1	mA	
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-4V	25				
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-3A ; V <sub>CE</sub> =-4V	10				

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PACKAGE OUTLINE

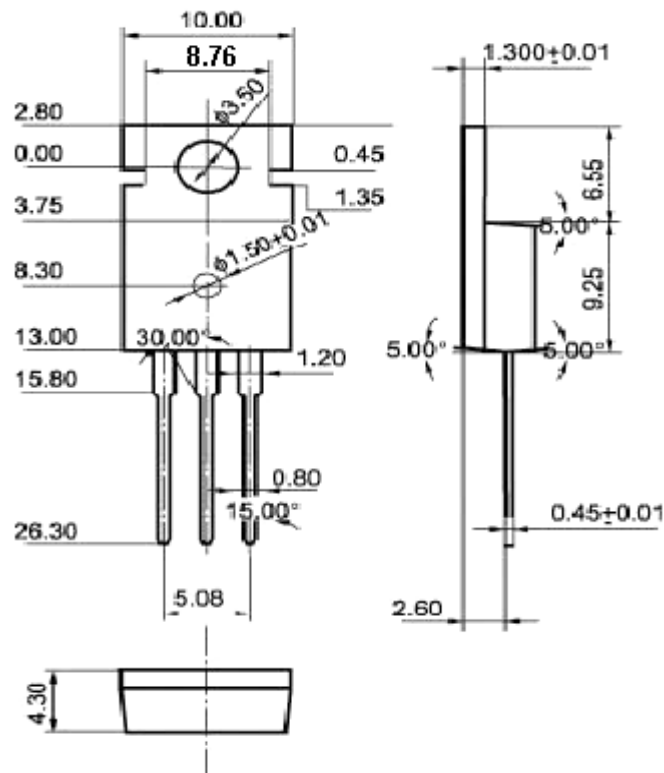


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.10$  mm)