

Silicon PNP Power Transistors

BD534/536/538

**DESCRIPTION**

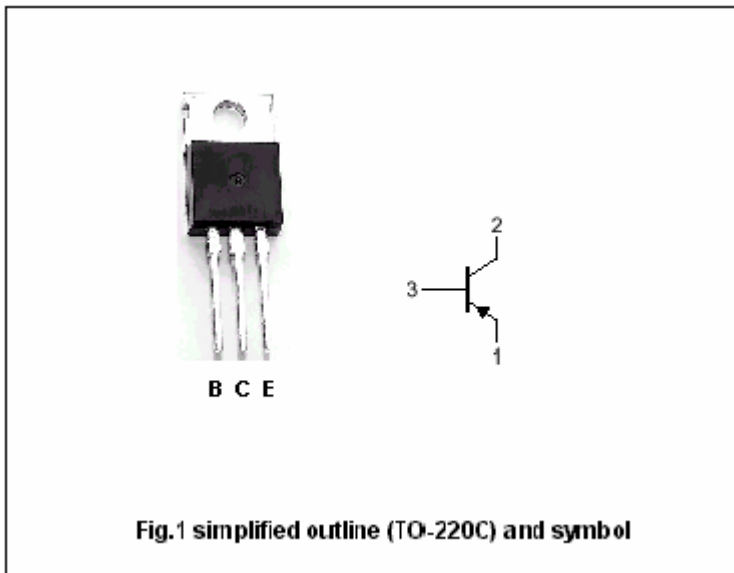
- With TO-220C package
- Complement to type BD533/535/537
- Low saturation voltage

**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	BD534	-45	V
		BD536	-60	
		BD538	-80	
V <sub>CEO</sub>	Collector-emitter voltage	BD534	-45	V
		BD536	-60	
		BD538	-80	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-8	A
I <sub>E</sub>	Emitter current		-8	A
I <sub>B</sub>	Base current		-1	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	50	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>CEsat-1</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =-2 A; I <sub>B</sub> =-0.2 A			-0.8	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =-6 A; I <sub>B</sub> =-0.6 A		-0.8		V
V <sub>BE</sub>	Base-emitter on voltage		I <sub>C</sub> =-2A ; V <sub>CE</sub> =-2V			-1.5	V
I <sub>CBO</sub>	Collector cut-off current	BD534	V <sub>CB</sub> =-45V; I <sub>E</sub> =0			-0.1	mA
		BD536	V <sub>CB</sub> =-60V; I <sub>E</sub> =0				
		BD538	V <sub>CB</sub> =-80V; I <sub>E</sub> =0				
I <sub>CES</sub>	Collector cut-off current	BD534	V <sub>CE</sub> =-45V; V <sub>BE</sub> =0			-0.1	mA
		BD536	V <sub>CE</sub> =-60V; V <sub>BE</sub> =0				
		BD538	V <sub>CE</sub> =-80V; 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	BD534/536	I <sub>C</sub> =-10mA ; V <sub>CE</sub> =-5V	20			
		BD538		15			
h <sub>FE-2</sub>	DC current gain		I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-2V	40			
h <sub>FE-3</sub>	DC current gain (All device)	Group: J	I <sub>C</sub> =-2A ; V <sub>CE</sub> =-2V	30		75	
		Group: K		40		100	
h <sub>FE-4</sub>	DC current gain (All device)	Group: J	I <sub>C</sub> =-3A ; V <sub>CE</sub> =-2V	15			
		Group: K		20			
f <sub>T</sub>	Transition frequency		I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-1V	3	12		MHz

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PACKAGE OUTLINE

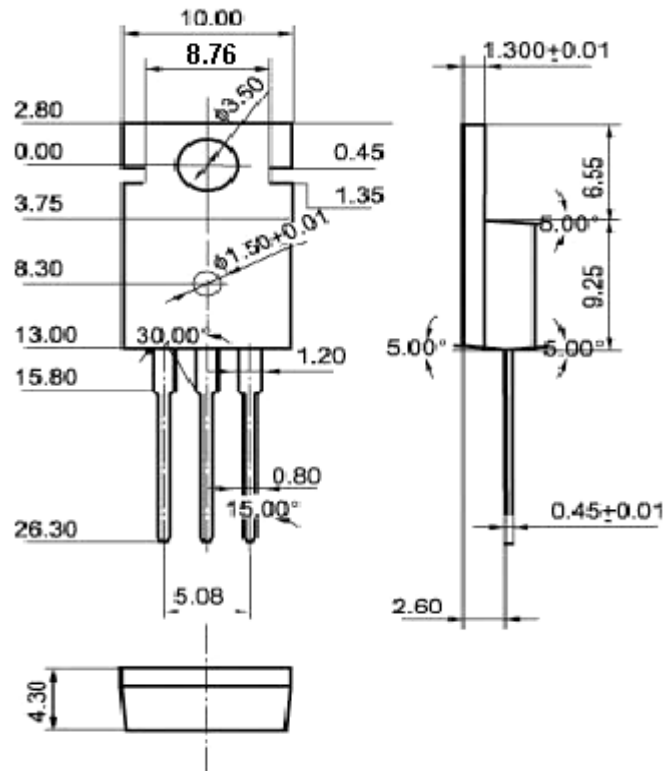


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.10$  mm)