

**Silicon PNP Power Transistors**

**BD434/436/438**

**DESCRIPTION**

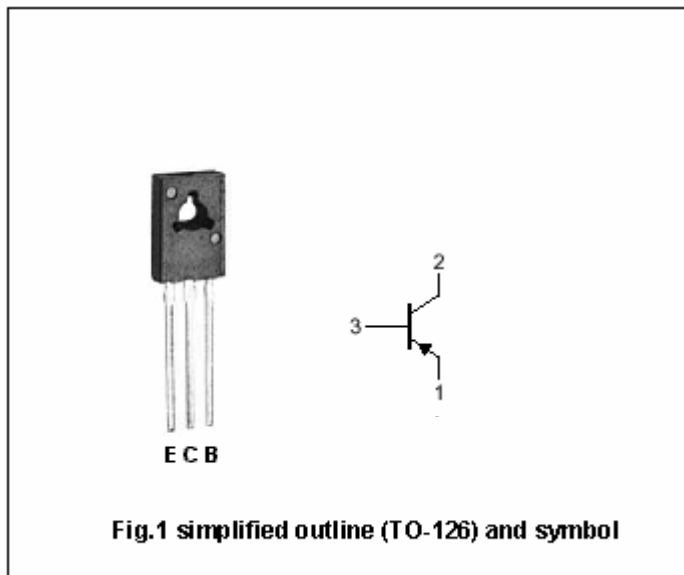
- With TO-126 package
- Complement to type BD433/435/437

**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	BD434	-22	V
		BD436	-32	
		BD438	-45	
V <sub>CEO</sub>	Collector-emitter voltage	BD434	-22	V
		BD436	-32	
		BD438	-45	
V <sub>EBO</sub>	Emitter -base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current (DC)		-4	A
I <sub>CM</sub>	Collector current-Peak		-7	A
I <sub>B</sub>	Base current		-1	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	36	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</sub>	Collector-emitter saturation voltage	BD434/436	I <sub>C</sub> =-2A; I <sub>B</sub> =-0.2A		-0.2	-0.5	V
		BD438				-0.6	
V <sub>BE</sub>	Base-emitter on voltage	BD434/436	I <sub>C</sub> =-2A; V <sub>CE</sub> =-1V			-1.1	V
		BD438				-1.2	
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	BD434	I <sub>C</sub> =-0.1A; I <sub>B</sub> =0			-22	V
		BD436				-32	
		BD438				-45	
I <sub>CES</sub>	Collector cut-off current	BD434	V <sub>CB</sub> =-22V; I <sub>E</sub> =0			-100	μA
		BD436	V <sub>CB</sub> =-32V; I <sub>E</sub> =0				
		BD438	V <sub>CB</sub> =-45V; I <sub>E</sub> =0				
I <sub>CES</sub>	Collector cut-off current	BD434	V <sub>CE</sub> =-22V; V <sub>BE</sub> =0			-100	μA
		BD436	V <sub>CE</sub> =-32V; V <sub>BE</sub> =0				
		BD438	V <sub>CE</sub> =-45V; 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	BD434/436	I <sub>C</sub> =-10mA; V <sub>CE</sub> =-5V			130	
		BD438					
h <sub>FE-2</sub>	DC current gain		I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-1V			140	
h <sub>FE-3</sub>	DC current gain	BD434/436	I <sub>C</sub> =-2A; V <sub>CE</sub> =-1V				
		BD438					
f <sub>T</sub>	Transition frequency		I <sub>C</sub> =-250mA; V <sub>CE</sub> =-1V				MHz

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PACKAGE OUTLINE

