

**Silicon PNP Power Transistors**

**BD810**

**DESCRIPTION**

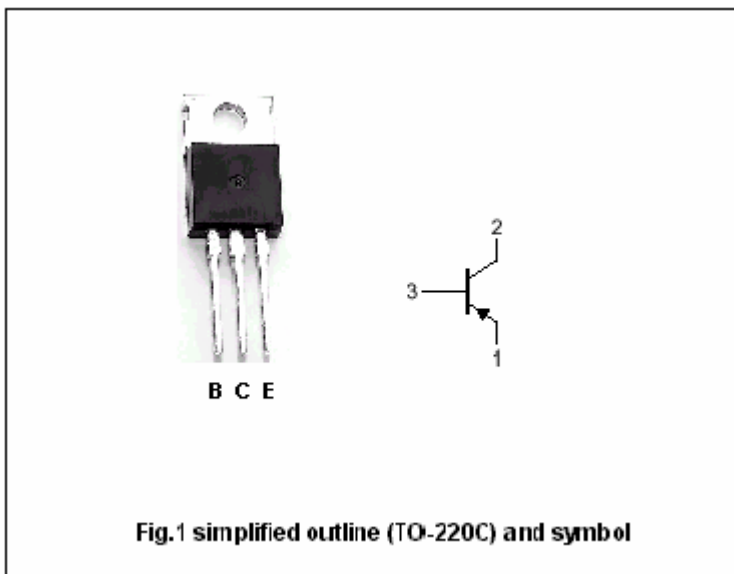
- With TO-220C package
- Complement to type BD809
- DC current gain  
:  $h_{FE} = 30$  (Min) @  $I_C = 2.0$  Adc

**APPLICATIONS**

- Designed for use in high power audio amplifiers utilizing complementary or quasi complementary circuits.

**PINNING**

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



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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-80	V
$V_{CEO}$	Collector-emitter voltage	Open base	-80	V
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current		-10	A
$I_B$	Base current		-6	A
$P_D$	Total power dissipation	$T_C=25$	90	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.39	/W

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## BD810

## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =-0.1A; I <sub>B</sub> =0	-80			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-3 A; I <sub>B</sub> =-0.3 A			-1.1	V
V <sub>BE</sub>	Base-emitter voltage	I <sub>C</sub> =-4A ; V <sub>CE</sub> =-2V			-1.6	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-80V; I <sub>E</sub> =0			-1.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-2.0	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-2A ; V <sub>CE</sub> =-2V	30			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-4A ; V <sub>CE</sub> =-2V	15			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-10V; f=1.0MHz	1.5			MHz

