

**Silicon PNP Power Transistors**

**BDW94/A/B/C**

**DESCRIPTION**

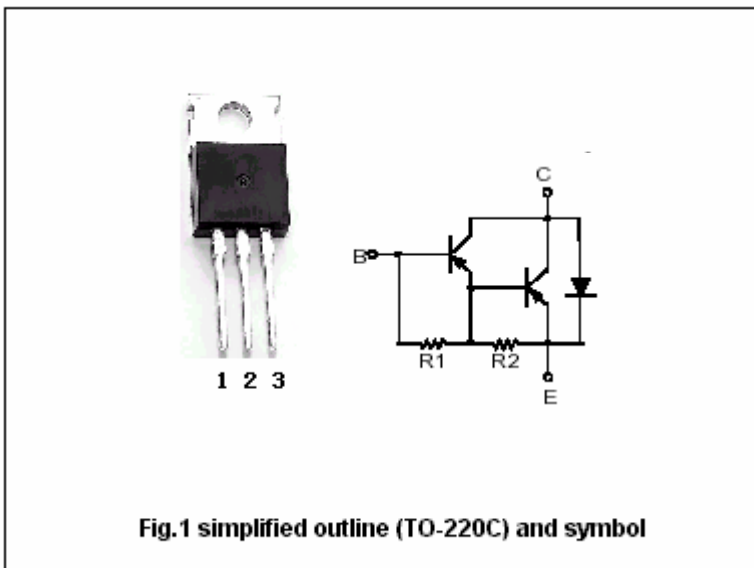
- With TO-220C package
- High DC Current Gain
- DARLINGTON
- Complement to type BDW93/A/B/C

**APPLICATIONS**

- Hammer drivers,
- Audio amplifiers 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	BDW94	-45	V
		BDW94A	-60	
		BDW94B	-80	
		BDW94C	-100	
V <sub>CEO</sub>	Collector-emitter voltage	BDW94	-45	V
		BDW94A	-60	
		BDW94B	-80	
		BDW94C	-100	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current-DC		-12	A
I <sub>CM</sub>	Collector current-Pulse		-15	A
I <sub>B</sub>	Base current		-0.2	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	80	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	BDW94	I <sub>C</sub> =0.1A, I <sub>B</sub> =0	-45			V
		BDW94A		-60			
		BDW94B		-80			
		BDW94C		-100			
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-5A, I <sub>B</sub> =-20mA			-2.0	V	
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-10A, I <sub>B</sub> =-0.1A			-3.0	V	
V <sub>BESat-1</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-5A, I <sub>B</sub> =-20mA			-2.5	V	
V <sub>BESat-2</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-10A, I <sub>B</sub> =-0.1A			-4.0	V	
I <sub>CBO</sub>	Collector cut-off current	BDW94	V <sub>CB</sub> =-45V, I <sub>E</sub> =0			-0.1	mA
		BDW94A		V <sub>CB</sub> =-60V, I <sub>E</sub> =0			
		BDW94B		V <sub>CB</sub> =-80V, I <sub>E</sub> =0			
		BDW94C		V <sub>CB</sub> =-100V, I <sub>E</sub> =0			
I <sub>CEO</sub>	Collector cut-off current	BDW94	V <sub>CE</sub> =-45V, I <sub>B</sub> =0			-1.0	mA
		BDW94A		V <sub>CE</sub> =-60V, I <sub>B</sub> =0			
		BDW94B		V <sub>CE</sub> =-80V, I <sub>B</sub> =0			
		BDW94C		V <sub>CE</sub> =-100V, I <sub>B</sub> =0			
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> =-3A; V <sub>CE</sub> =-3V	1000				
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-5A; V <sub>CE</sub> =-3V	750		20000		
h <sub>FE-3</sub>	DC current gain	I <sub>C</sub> =-10A; V <sub>CE</sub> =-3V	100				
V <sub>F-1</sub>	Forward diode voltage	I <sub>F</sub> =-5A			-2.0	V	
V <sub>F-2</sub>	Forward diode voltage	I <sub>F</sub> =-10A			-4.0	V	

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PACKAGE OUTLINE

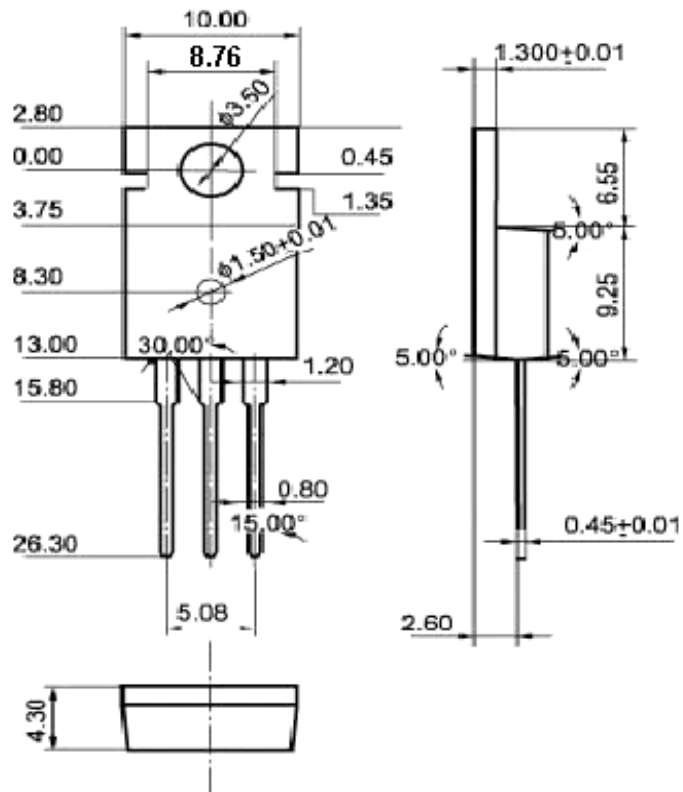


Fig.2 Outline dimensions