

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

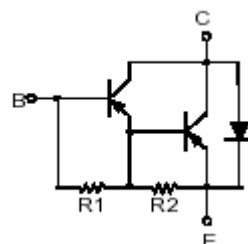
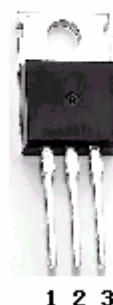


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings($T_a=25^\circ$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BDW94	Open emitter	-45	V
		BDW94A		-60	
		BDW94B		-80	
		BDW94C		-100	
V_{CEO}	Collector-emitter voltage	BDW94	Open base	-45	V
		BDW94A		-60	
		BDW94B		-80	
		BDW94C		-100	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current-DC			-12	A
I_{CM}	Collector current-Pulse			-15	A
I_B	Base current			-0.2	A
P_C	Collector power dissipation		$T_C=25^\circ$	80	W
T_j	Junction temperature			150	$^\circ$
T_{stg}	Storage temperature			-65~150	$^\circ$

Silicon PNP Power Transistors

BDW94/A/B/C

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	BDW94	I _C =0.1A, I _B =0	-45			V
		BDW94A		-60			
		BDW94B		-80			
		BDW94C		-100			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =-5A, I _B =-20mA			-2.0	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =-10A, I _B =-0.1A			-3.0	V
V _{BEsat-1}	Base-emitter saturation voltage		I _C =-5A, I _B =-20mA			-2.5	V
V _{BEsat-2}	Base-emitter saturation voltage		I _C =-10A, I _B =-0.1A			-4.0	V
I _{CBO}	Collector cut-off current	BDW94	V _{CB} =-45V, I _E =0			-0.1	mA
		BDW94A	V _{CB} =-60V, I _E =0				
		BDW94B	V _{CB} =-80V, I _E =0				
		BDW94C	V _{CB} =-100V, I _E =0				
I _{CEO}	Collector cut-off current	BDW94	V _{CE} =-45V, I _B =0			-1.0	mA
		BDW94A	V _{CE} =-60V, I _B =0				
		BDW94B	V _{CE} =-80V, I _B =0				
		BDW94C	V _{CE} =-100V, I _B =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-2.0	mA
h _{FE-1}	DC current gain		I _C =-3A; V _{CE} =-3V	1000			
h _{FE-2}	DC current gain		I _C =-5A; V _{CE} =-3V	750		20000	
h _{FE-3}	DC current gain		I _C =-10A; V _{CE} =-3V	100			
V _{F-1}	Forward diode voltage		I _F =-5A			-2.0	V
V _{F-2}	Forward diode voltage		I _F =-10A			-4.0	V

Silicon PNP Power Transistors

BDW94/A/B/C

PACKAGE OUTLINE

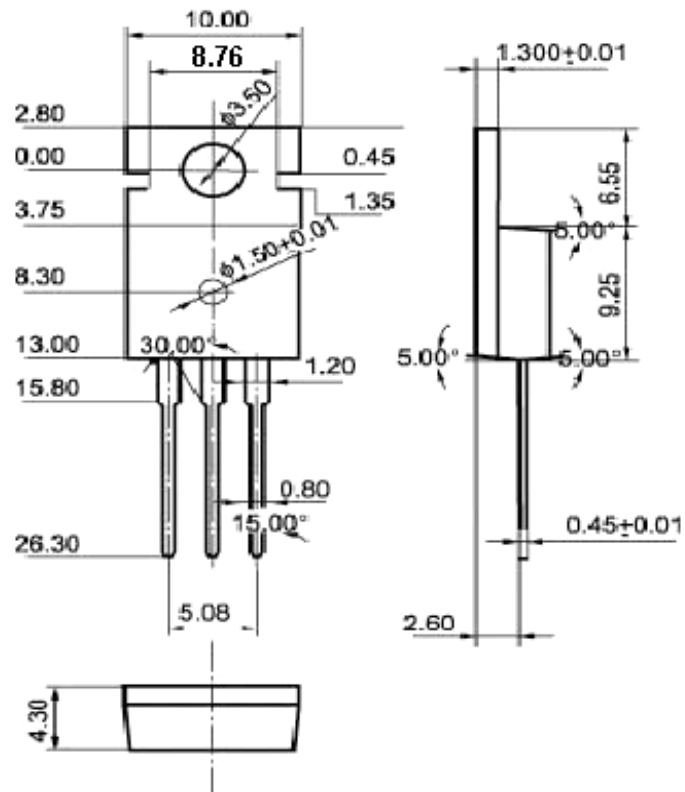


Fig.2 Outline dimensions