

Silicon NPN Power Transistors

BD895/897/899/901

DESCRIPTION

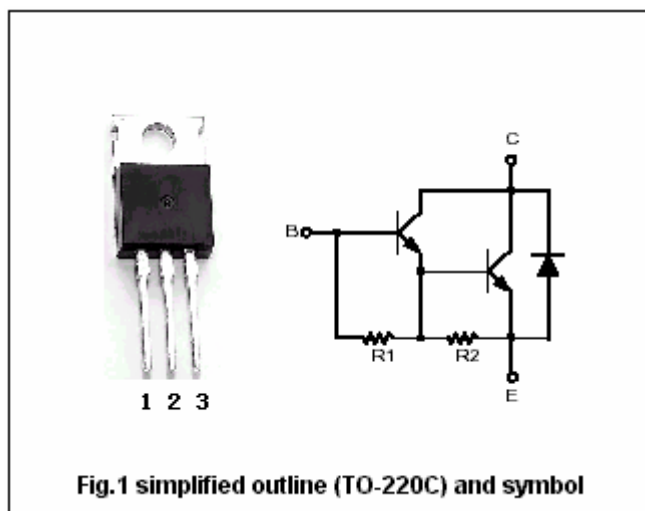
- With TO-220C package
- Complement to type BD896/898/900/902
- DARLINGTON

APPLICATIONS

- For use in output stages in audio equipment ,general amplifier,and analogue switching applications

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BD895	Open emitter	45	V
		BD897		60	
		BD899		80	
		BD901		100	
V_{CEO}	Collector-emitter voltage	BD895	Open base	45	V
		BD897		60	
		BD899		80	
		BD901		100	
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current-DC			8	A
I_B	Base current			300	mA
P_T	Total power dissipation		$T_C=25^\circ\text{C}$	70	W
			$T_a=25^\circ\text{C}$	2	
T_j	Junction temperature			150	$^\circ\text{C}$
T_{stg}	Storage temperature			-65~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	BD895	I _C =100mA, I _B =0	45			V
		BD897		60			
		BD899		80			
		BD901		100			
V _{CEsat}	Collector-emitter saturation voltage		I _C =3A ,I _B =12mA			2.5	V
V _{BE}	Base-emitter on voltage		I _C =3A ; V _{CE} =3V			2.5	V
I _{CBO}	Collector cut-off current	BD895	V _{CB} =45V, I _E =0 T _C =100□			0.2 2.0	mA
		BD897	V _{CB} =60V, I _E =0 T _C =100□			0.2 2.0	
		BD899	V _{CB} =80V, I _E =0 T _C =100□			0.2 2.0	
		BD901	V _{CB} =100V, I _E =0 T _C =100□			0.2 2.0	
I _{CEO}	Collector cut-off current	BD895	V _{CE} =30V, I _B =0			0.5	mA
		BD897	V _{CE} =30V, I _B =0				
		BD899	V _{CE} =40V, I _B =0				
		BD901	V _{CE} =50V, I _B =0				
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			2	mA
h _{FE}	DC current gain		I _C =3A ; V _{CE} =3V	750			
V _{EC}	Diode forward voltage		I _E =8A			3.5	V
t _{on}	Turn-on time		I _C =3A ; I _{B1} =-I _{B2} =12mA V _{BE} =-3.5V;R _L =10Ω;t _p =20μs		1		μs
t _{off}	Turn-off time				5		μs

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	1.79	℃/W

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PACKAGE OUTLINE

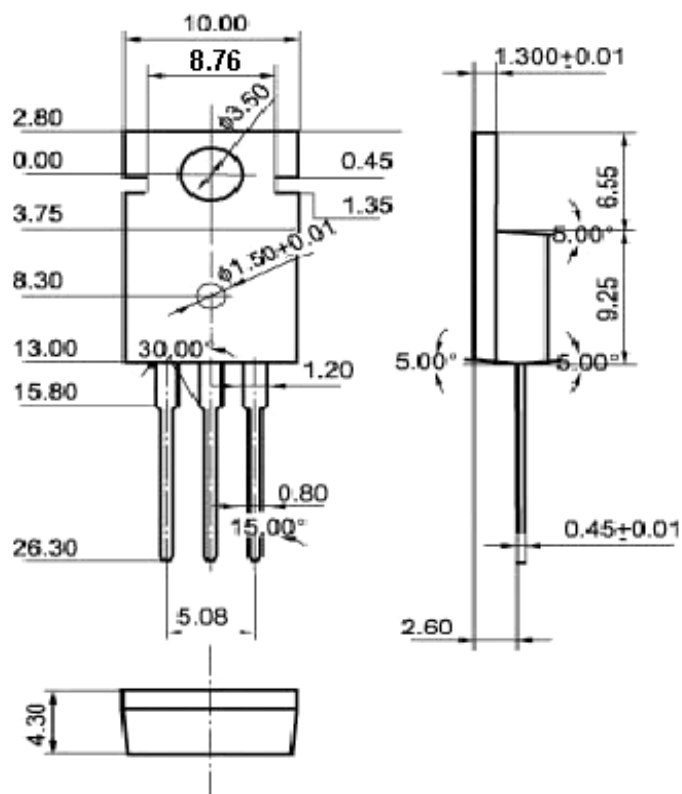


Fig.2 Outline dimensions