

## Silicon NPN Power Transistors

## BD895A/897A/899A

## DESCRIPTION

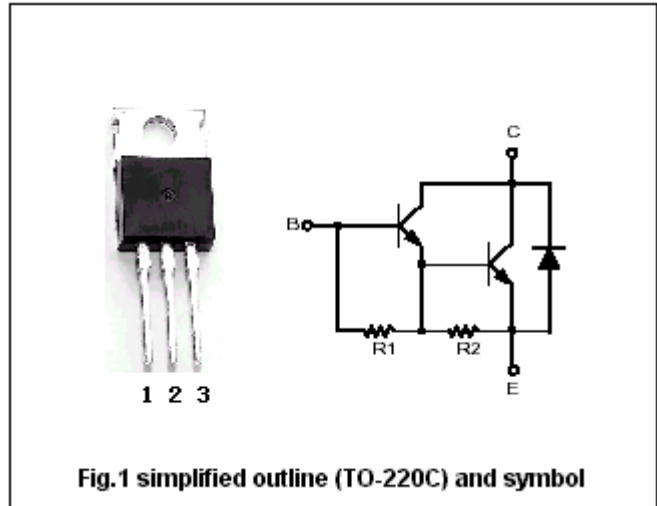
- With TO-220C package
- Complement to type BD896A/898A/900A
- DARLINGTON

## 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( $T_a=25^\circ$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	BD895A	45	V
		BD897A	60	
		BD899A	80	
$V_{CEO}$	Collector-emitter voltage	BD895A	45	V
		BD897A	60	
		BD899A	80	
$V_{EBO}$	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	$T_c=25^\circ$	70	W
		$T_a=25^\circ$	2	
$T_j$	Junction temperature		150	$^\circ$
$T_{stg}$	Storage temperature		-65~150	$^\circ$

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## CHARACTERISTICS

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

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	BD895A	45			V	
		BD897A	60				
		BD899A	80				
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4A, I <sub>B</sub> =16mA			2.8	V	
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =4A; V <sub>CE</sub> =3V			2.5	V	
I <sub>CBO</sub>	Collector cut-off current	BD895A	V <sub>CB</sub> =45V, I <sub>E</sub> =0 T <sub>C</sub> =100°C			0.2 2.0	mA
		BD897A	V <sub>CB</sub> =60V, I <sub>E</sub> =0 T <sub>C</sub> =100°C			0.2 2.0	
		BD899A	V <sub>CB</sub> =80V, I <sub>E</sub> =0 T <sub>C</sub> =100°C			0.2 2.0	
I <sub>CEO</sub>	Collector cut-off current	BD895A	V <sub>CE</sub> =30V, I <sub>B</sub> =0			0.5	mA
		BD897A	V <sub>CE</sub> =30V, I <sub>B</sub> =0				
		BD899A	V <sub>CE</sub> =40V, I <sub>B</sub> =0				
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			2	mA	
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =4A; V <sub>CE</sub> =3V	750				
V <sub>EC</sub>	Diode forward voltage	I <sub>E</sub> =8A			3.5	V	
t <sub>on</sub>	Turn-on time	I <sub>C</sub> =3A; I <sub>B1</sub> =-I <sub>B2</sub> =12mA V <sub>BE</sub> =-3.5V; R <sub>L</sub> =10Ω; t <sub>p</sub> =20μs		1		μs	
t <sub>off</sub>	Turn-off time			5		μs	

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance junction to case	1.79	°C/W

PACKAGE OUTLINE

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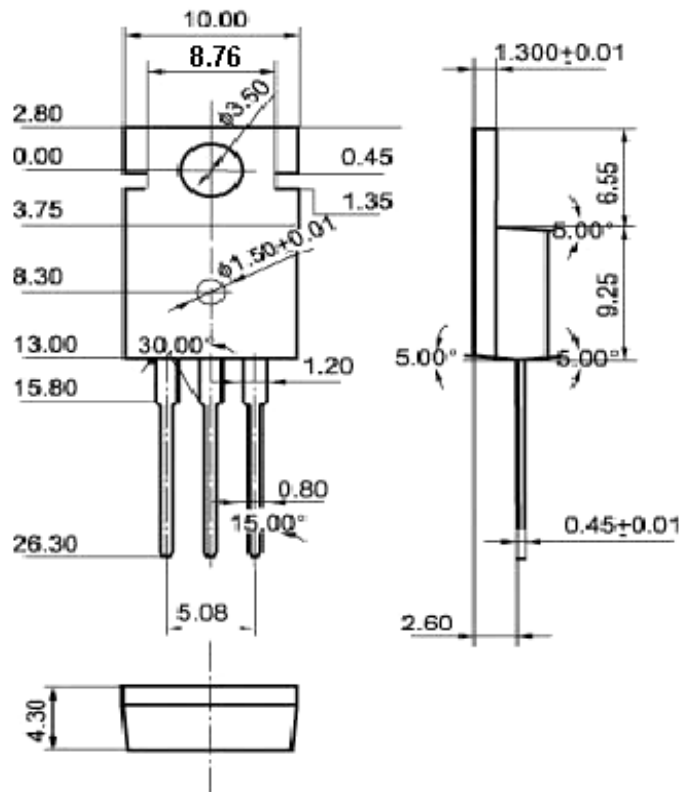


Fig.2 Outline dimensions