

Silicon NPN Power Transistors

BD895/897/899/901

DESCRIPTION

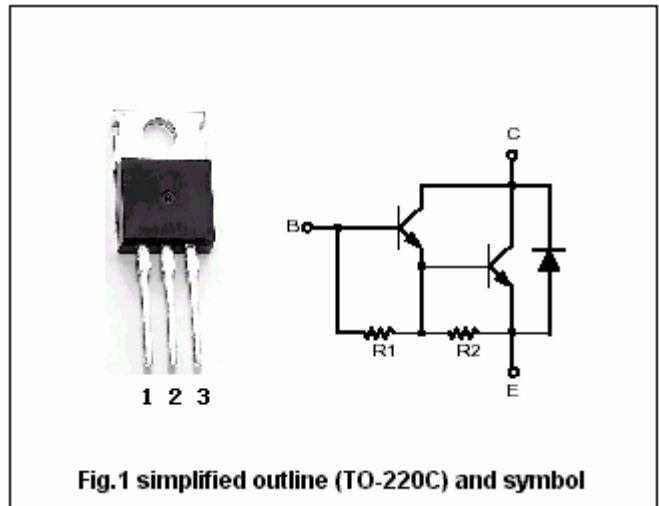
- With TO-220C package
- Complement to type BD896/898/900/902
- DARLINGTON

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°C unless otherwise specified

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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	$V_{CB}=45V, I_E=0$ $T_C=100^{\circ}\square$			0.2 2.0	mA
		BD897	$V_{CB}=60V, I_E=0$ $T_C=100^{\circ}\square$			0.2 2.0	
		BD899	$V_{CB}=80V, I_E=0$ $T_C=100^{\circ}\square$			0.2 2.0	
		BD901	$V_{CB}=100V, I_E=0$ $T_C=100^{\circ}\square$			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		$I_C=3A; I_{B1}=-I_{B2}=12mA$ $V_{BE}=-3.5V; R_L=10\Omega; t_p=20\mu s$		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	°C/W

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PACKAGE OUTLINE

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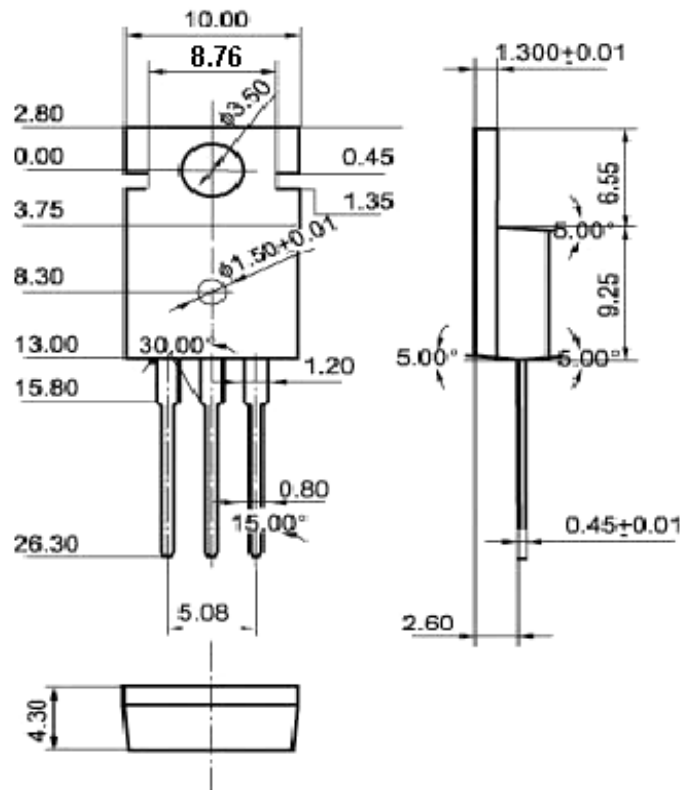


Fig.2 Outline dimensions