

Silicon PNP Power Transistors

BD896/898/900/902

DESCRIPTION

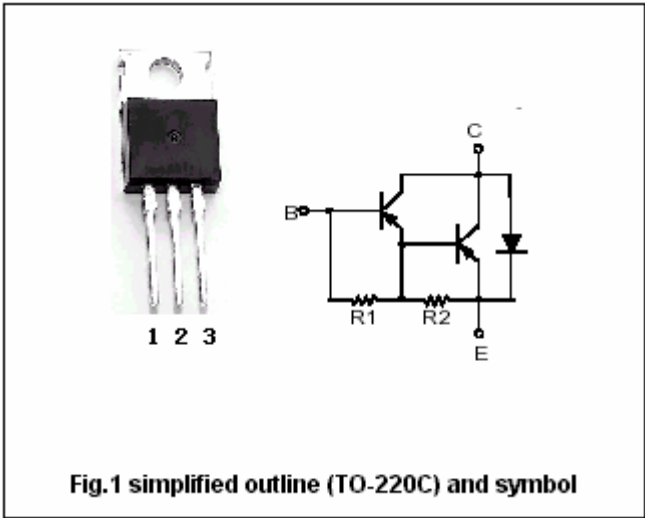
- With TO-220C package
- Complement to type BD895/897/899/901
- DARLINGTON

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(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	-45	V
			-60	
			-80	
			-100	
V _{CEO}	Collector-emitter voltage	Open base	-45	V
			-60	
			-80	
			-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°C	70	W
		T _a =25°C	2	
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	BD896	$I_C=-100mA, I_B=0$	-45			V
		BD898		-60			
		BD900		-80			
		BD902		-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	BD896	$V_{CB}=-45V, I_E=0$ $T_C=100^{\circ}C$			-0.2 -2.0	mA
		BD898	$V_{CB}=-60V, I_E=0$ $T_C=100^{\circ}C$			-0.2 -2.0	
		BD900	$V_{CB}=-80V, I_E=0$ $T_C=100^{\circ}C$			-0.2 -2.0	
		BD902	$V_{CB}=-100V, I_E=0$ $T_C=100^{\circ}C$			-0.2 -2.0	
I_{CEO}	Collector cut-off current	BD896	$V_{CE}=-30V, I_B=0$			-0.5	mA
		BD898	$V_{CE}=-30V, I_B=0$				
		BD900	$V_{CE}=-40V, I_B=0$				
		BD902	$V_{CE}=-50V, I_B=0$				
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

