

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

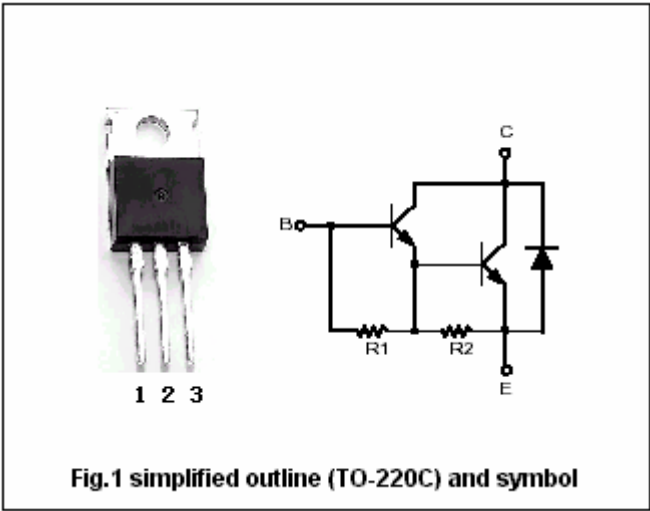


Fig.1 simplified outline (TO-220C) and symbol

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	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	$V_{CB}=45V, I_E=0$ $T_C=100^{\circ}C$			0.2 2.0	mA
		BD897	$V_{CB}=60V, I_E=0$ $T_C=100^{\circ}C$			0.2 2.0	
		BD899	$V_{CB}=80V, I_E=0$ $T_C=100^{\circ}C$			0.2 2.0	
		BD901	$V_{CB}=100V, I_E=0$ $T_C=100^{\circ}C$			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

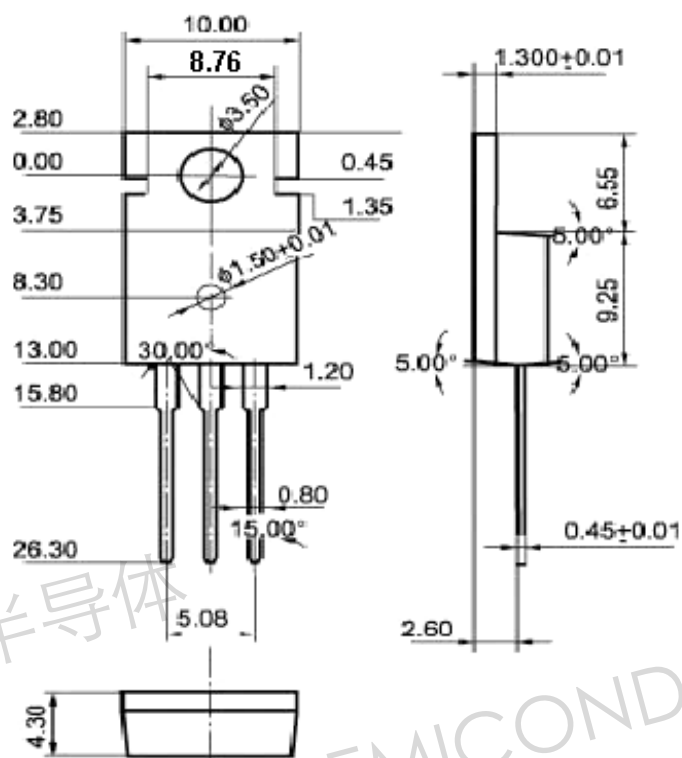


Fig.2 Outline dimensions