

Silicon PNP Power Transistors

2SB896 2SB896A

DESCRIPTION

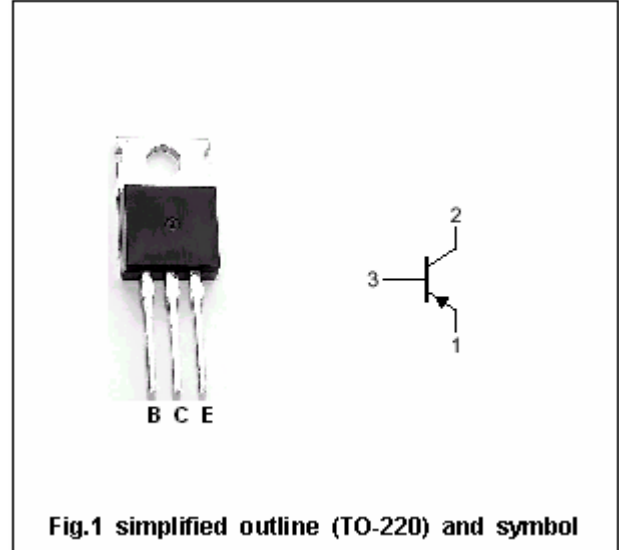
- With TO-220C package
- Low collector saturation voltage
- High speed switching

APPLICATIONS

- For low voltage switching applications

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SB896	-40	V
		2SB896A	-50	
V_{CEO}	Collector-emitter voltage	2SB896	-20	V
		2SB896A	-40	
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current (DC)		-10	A
I_{CM}	Collector current-Peak		-15	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	35	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-50~150	$^\circ\text{C}$

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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	2SB896	I _C =-10mA; I _B =0	-20		V
		2SB896A		-40		
V _{CEsat}	Collector-emitter saturation voltage	I _C =-7A; I _B =-0.23A			-0.6	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-7A; I _B =-0.23A			-1.5	V
I _{CBO}	Collector cut-off current	2SB896	V _{CB} =-40V; I _E =0		-50	μA
		2SB896A		V _{CB} =-50V; I _E =0		
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-50	μA
h _{FE-1}	DC current gain	I _C =-0.1A; V _{CE} =-2V	45			
h _{FE-2}	DC current gain	I _C =-2A; V _{CE} =-2V	60		260	
C _{ob}	Output capacitance	I _E =0; V _{CB} =-10V; f=1MHz		200		pF
f _T	Transition frequency	I _C =-0.5A; V _{CE} =-10V		150		MHz

Switching times

t _{on}	Turn-on time	I _C =-2A; I _{B1} =-I _{B2} =-66mA		0.1		μs
t _{stg}	Storage time			0.5		μs
t _f	Fall time			0.1		μs

◆ h_{FE-2} Classifications

R	Q	P
60-120	90-180	130-260

