

**isc Silicon PNP Power Transistor**
**2SB896**
**DESCRIPTION**

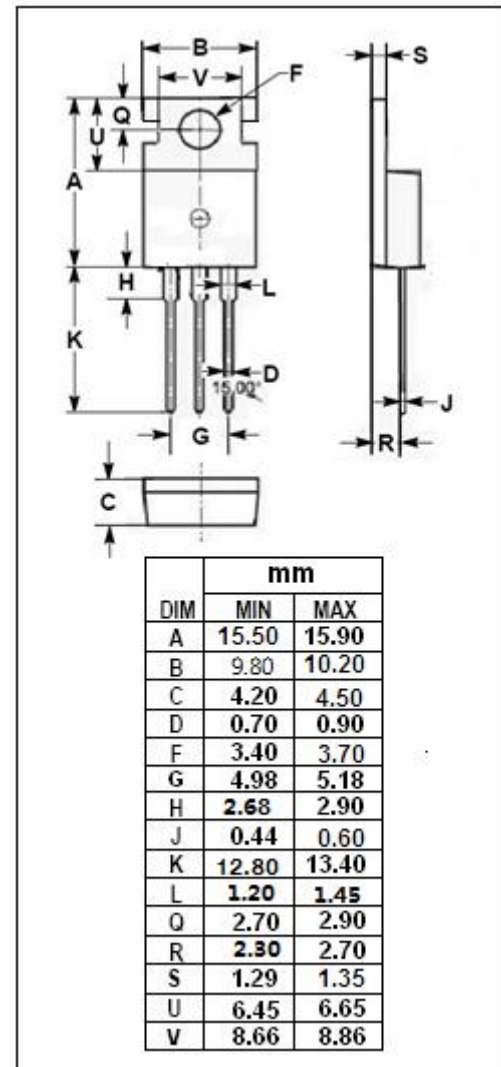
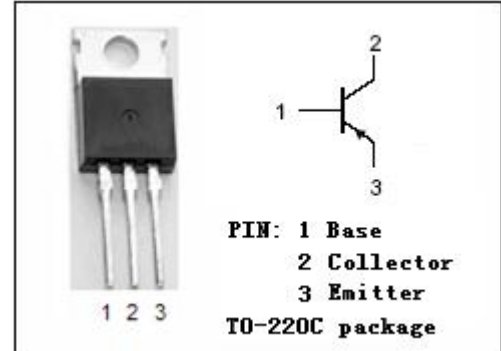
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -40V(\text{Min.})$
- Low Collector Saturation Voltage-  
:  $V_{CE(sat)} = -0.6(\text{Max.}) @ I_C = -7A$
- High speed switching
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for low voltage switching applications .

**ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-40	V
$V_{CEO}$	Collector-Emitter Voltage	-40	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-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	-55~150	$^\circ\text{C}$



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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -10mA; R <sub>BE</sub> = ∞	-40			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -1mA; I <sub>C</sub> = 0	-5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -7A; I <sub>B</sub> = -0.23A			-0.6	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -7A; I <sub>B</sub> = -0.23A			-1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -40V; I <sub>E</sub> = 0			-50	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0			-10	μ A
h <sub>FE1</sub>	DC Current Gain	I <sub>C</sub> = -0.1A; V <sub>CE</sub> = -2V	45			
h <sub>FE2</sub>	DC Current Gain	I <sub>C</sub> = -2A; V <sub>CE</sub> = -2V	60		260	
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f= 1MHz		200		pF

## Switching Times

t <sub>on</sub>	Turn-on Time	I <sub>C</sub> = -2A; I <sub>B1</sub> = -I <sub>B2</sub> = -66mA,			0.5	μ s
t <sub>stg</sub>	Storage Time				1.0	μ s
t <sub>f</sub>	Fall Time				0.5	μ s

h<sub>FE-2</sub> Classifications

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

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