

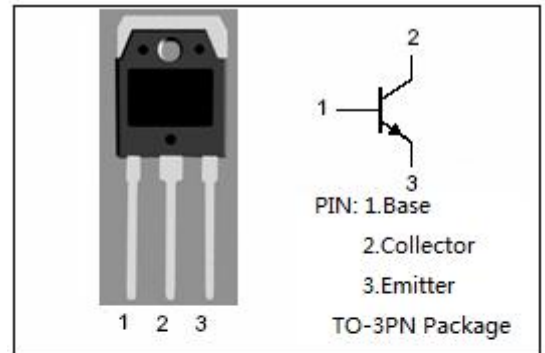
**isc Silicon NPN Power Transistors**
**BUW131/A**
**DESCRIPTION**

High Switching Speed

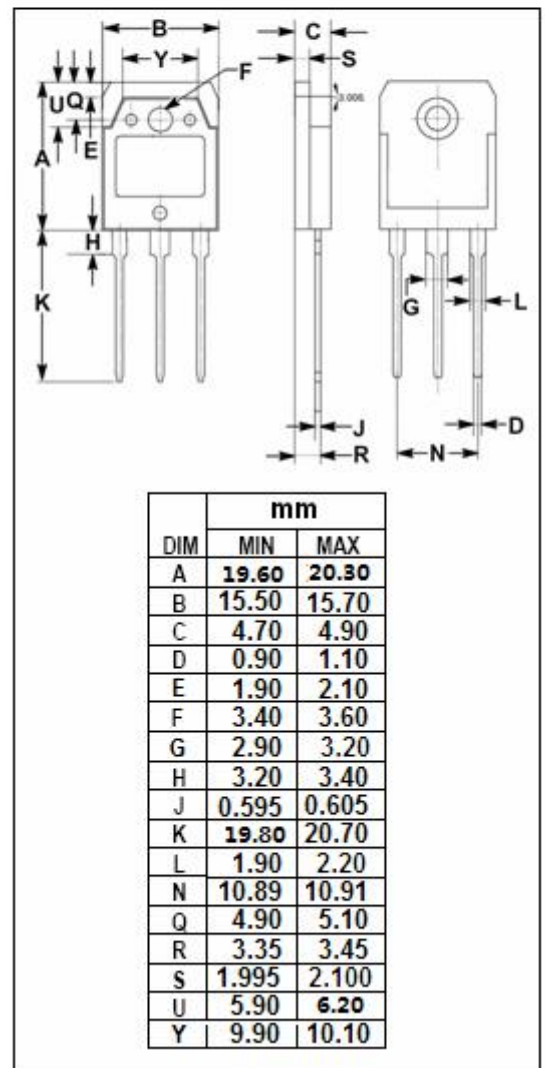
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 450V$  (Min)-BUW131  
500V (Min)-BUW131A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for use in very fast switching applications in inductive circuits.


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

SYMBOL	PARAMETER	MAX	UNIT	
$V_{CES}$	Collector- Emitter Voltage ( $V_{BE} = 0$ )	BUW131	850	V
		BUW131A	1000	
$V_{CEO}$	Collector-Emitter Voltage	BUW131	450	V
		BUW131A	500	
$V_{EBO}$	Emitter-Base Voltage	6	V	
$I_C$	Collector Current-Continuous	8	A	
$I_{CM}$	Collector Current-Peak	16	A	
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ C$	125	W	
$T_j$	Junction Temperature	150	$^\circ C$	
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ C$	


**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ C/W$

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**ELECTRICAL CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE0(SUS)</sub>	Collector-Emitter Sustaining Voltage	BUW131	I <sub>C</sub> = 50mA ; I <sub>B</sub> = 0		450	V
		BUW131A			500	
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	BUW131	I <sub>C</sub> = 3A; I <sub>B</sub> = 0.4A		1.0	V
		BUW131A	I <sub>C</sub> = 3A; I <sub>B</sub> = 0.6A		1.0	
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	BUW131	I <sub>C</sub> = 5A; I <sub>B</sub> = 0.66A		2.5	V
		BUW131A	I <sub>C</sub> = 5A; I <sub>B</sub> = 1A		2.5	
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	BUW131	I <sub>C</sub> = 5A; I <sub>B</sub> = 0.66A		1.5	V
		BUW131A	I <sub>C</sub> = 5A; I <sub>B</sub> = 1A		1.5	
I <sub>CB0</sub>	Collector-Base Cutoff Current	V <sub>CB</sub> =V <sub>CB0</sub> ; I <sub>E</sub> = 0 V <sub>CB</sub> =V <sub>CB0</sub> ; I <sub>E</sub> = 0; T <sub>J</sub> =100°C			0.25 1.5	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 6V; I <sub>C</sub> = 0			1	mA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 5A; V <sub>CE</sub> = 5V	5			

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