



Micro Commercial Components



Micro Commercial Components  
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# BDW93B

## NPN Silicon Power Transistors

### Features

- Halogen free available upon request by adding suffix "-HF"
- Intended for use in power linear and switching applications
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum

Symbol	Rating	Rating	Unit
$V_{CEO}$	Collector-Emitter Voltage	80	V
$V_{CBO}$	Collector-Base Voltage	80	V
$V_{EBO}$	Emitter-Base Voltage	5.0	V
$I_{CP}$	Peak Collector Current	15	A
$I_C$	Collector Current	12	A
$P_C$	Collector power dissipation	80	W
$T_J$	Junction Temperature	-55 to +150	°C
$T_{STG}$	Storage Temperature	-55 to +150	°C

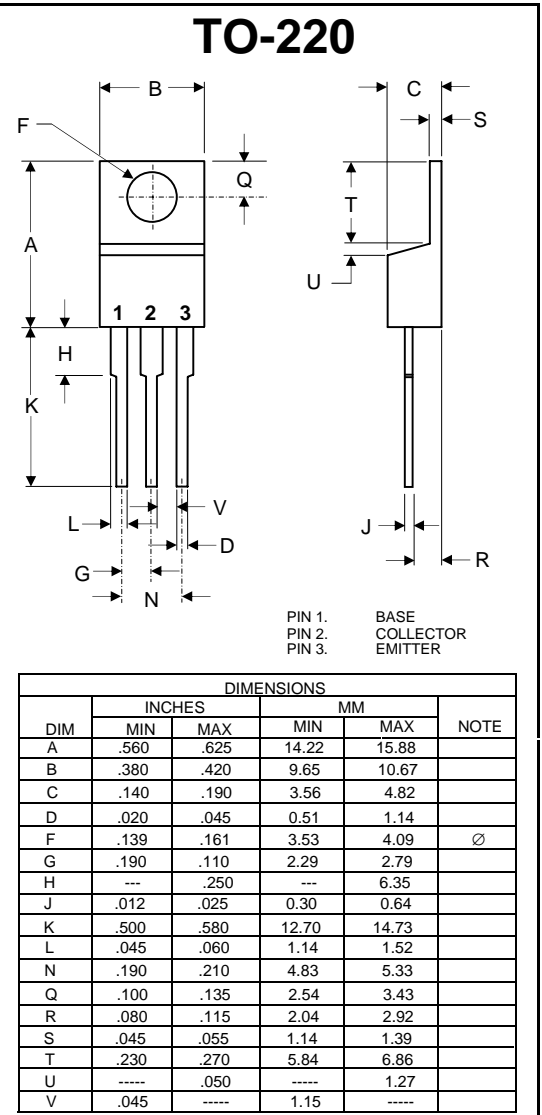
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=100mA$ , $I_B=0$ )	80	---	Vdc
$I_{CBO}$	Collector-Base Cutoff Current ( $V_{CB}=80Vdc$ , $I_E=0$ )	---	0.1	mAdc
$I_{EBO}$	Emitter-Base Cutoff Current ( $V_{EB}=5.0Vdc$ , $I_C=0$ )	---	2.0	mAdc

### ON CHARACTERISTICS

$h_{FE-1}$	Forward Current Transfer ratio ( $I_C=3.0Adc$ , $V_{CE}=3.0Vdc$ )	1000	---	---
$h_{FE-2}$	Forward Current Transfer ratio ( $I_C=5.0Adc$ , $V_{CE}=3.0Vdc$ )	750	20000	---
$h_{FE-3}$	Forward Current Transfer ratio ( $I_C=10Adc$ , $V_{CE}=3.0Vdc$ )	100	---	---
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage ( $I_C=5.0Adc$ , $I_B=20mAdc$ )	---	2.0	Vdc
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage ( $I_C=10Adc$ , $I_B=100mAdc$ )	---	3.0	Vdc
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage ( $I_C=5.0Adc$ , $I_B=20mAdc$ )	---	2.5	Vdc
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage ( $I_C=10Adc$ , $I_B=100mAdc$ )	---	4.0	Vdc

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.





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### Ordering Information :

Device	Packing
Part Number-BP	Bulk; 1Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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