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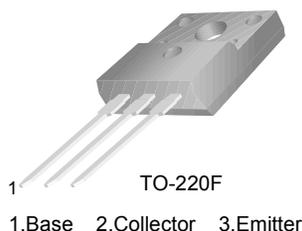
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# BDW94CF

## PNP Epitaxial Silicon Transistor

### Power Linear and Switching Application

- Power Darlington TR
- Complement to BDW93CF Respectively



### Absolute Maximum Ratings T<sub>a</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	-100	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-100	V
I <sub>C</sub>	Collector Current (DC)	-12	A
I <sub>CP</sub>	Collector Current (Pulse) *	-15	A
I <sub>B</sub>	Base Current	-0.2	A
P <sub>C</sub>	Collector Dissipation (T <sub>C</sub> = 25°C)	30	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-65 ~ 150	°C

### Electrical Characteristics T<sub>C</sub> = 25°C unless otherwise noted

Symbol	Parameter	Conditions	Min.	Typ.	Max	Units
V <sub>CEO(sus)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = -100mA, I <sub>B</sub> = 0	-100			V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = -100V, I <sub>E</sub> = 0			-100	μA
I <sub>CEO</sub>	Collector Cut-off Current	V <sub>CE</sub> = -100V, I <sub>B</sub> = 0			-1	mA
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> = -5V, I <sub>C</sub> = 0			-2	mA
h <sub>FE</sub>	DC Current Gain *	V <sub>CE</sub> = -3V, I <sub>C</sub> = -3A V <sub>CE</sub> = -3V, I <sub>C</sub> = -5A V <sub>CE</sub> = -3V, I <sub>C</sub> = -10A	1000 750 100		20000	
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage *	I <sub>C</sub> = -5A, I <sub>B</sub> = -20mA I <sub>C</sub> = -10A, I <sub>B</sub> = -100mA			-2 -3	V V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage *	I <sub>C</sub> = -5A, I <sub>B</sub> = -20mA I <sub>C</sub> = -10A, I <sub>B</sub> = -100mA			-2.5 -4	V V
V <sub>F</sub>	Parallel Diode Forward Voltage *	I <sub>F</sub> = -5A I <sub>F</sub> = -10A		-1.3 -1.8	-2 -4	V V

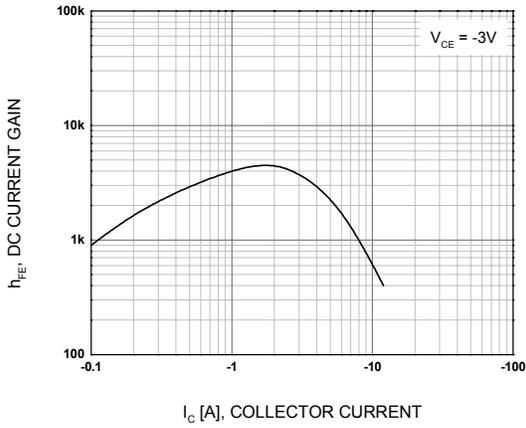
\* Pulse Test: PW = 300μs, Duty Cycle = 1.5% Pulsed

### Package Marking and Ordering Information

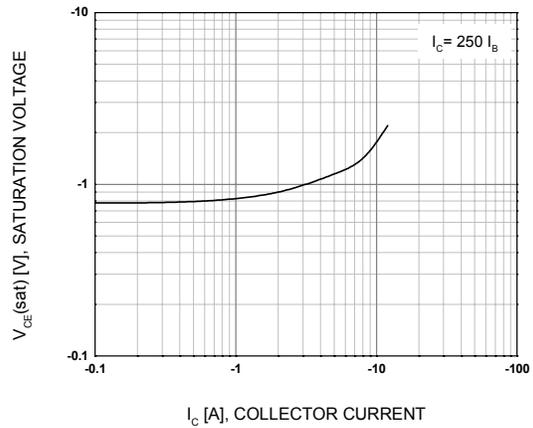
Device Marking	Device	Package	Reel Size	Tape Width	Quantity
BDW94CF	BDW94CF	TO-220F	-	-	50

### Typical Performance Characteristics

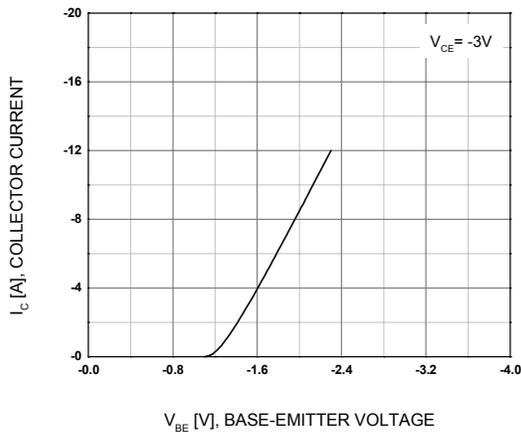
**Figure 1. DC Current Gain**



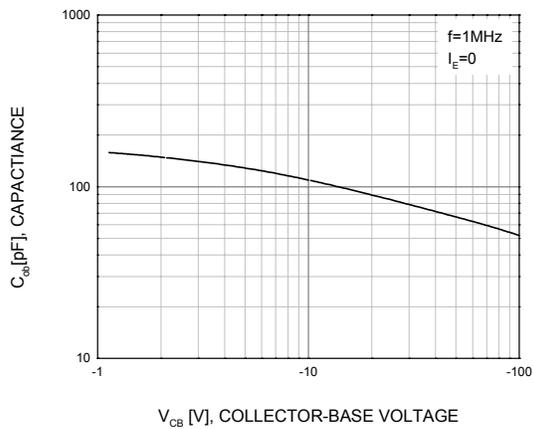
**Figure 2. Collector-Emitter Saturation Voltage**



**Figure 3. Base-Emitter On Voltage**

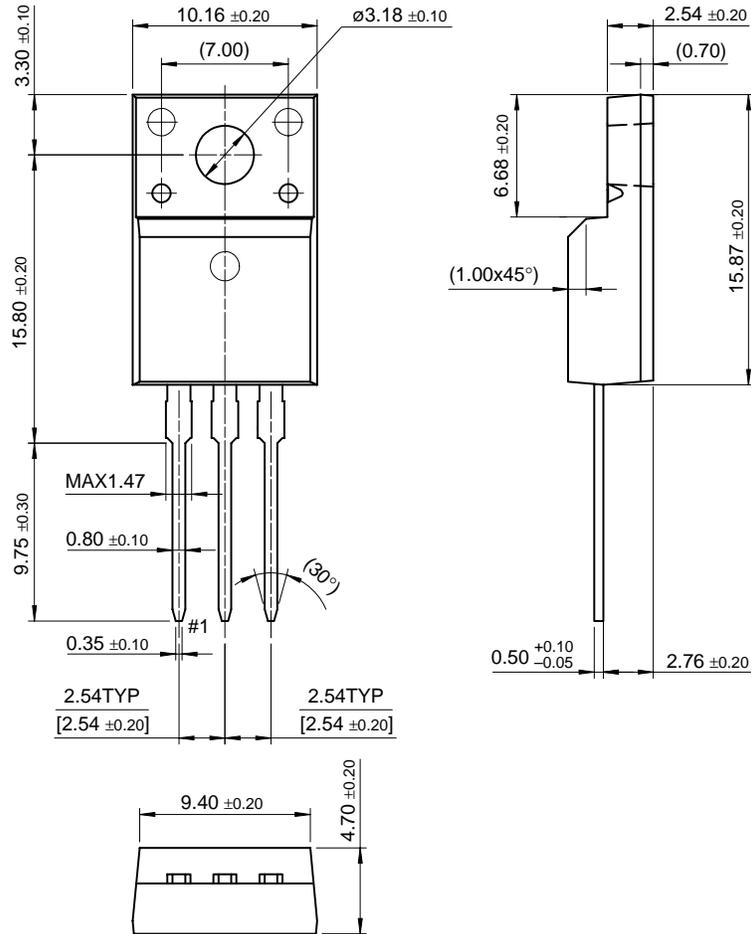


**Figure 4. Output Capacitance**



Mechanical Dimensions

TO-220F



Dimensions in Millimeters

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		PowerEdge™	SuperSOT™-6	

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