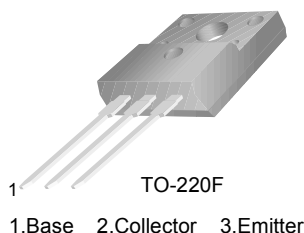


BDW94CF

PNP Epitaxial Silicon Transistor

Power Linear and Switching Application

- Power Darlington TR
- Complement to BDW93CF Respectively



Absolute Maximum Ratings T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	-100	V
V _{CEO}	Collector-Emitter Voltage	-100	V
I _C	Collector Current (DC)	-12	A
I _{CP}	Collector Current (Pulse) *	-15	A
I _B	Base Current	-0.2	A
P _C	Collector Dissipation (T _C = 25°C)	30	W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-65 ~ 150	°C

Electrical Characteristics T_C = 25°C unless otherwise noted

Symbol	Parameter	Conditions	Min.	Typ.	Max	Units
V _{CEO(sus)}	Collector-Emitter Sustaining Voltage	I _C = -100mA, I _B = 0	-100			V
I _{CBO}	Collector Cut-off Current	V _{CB} = -100V, I _E = 0			-100	μA
I _{CEO}	Collector Cut-off Current	V _{CE} = -100V, I _B = 0			-1	mA
I _{EBO}	Emitter Cut-off Current	V _{EB} = -5V, I _C = 0			-2	mA
h _{FE}	DC Current Gain *	V _{CE} = -3V, I _C = -3A V _{CE} = -3V, I _C = -5A V _{CE} = -3V, I _C = -10A	1000 750 100		20000	
V _{CE(sat)}	Collector-Emitter Saturation Voltage *	I _C = -5A, I _B = -20mA I _C = -10A, I _B = -100mA			-2 -3	V V
V _{BE(sat)}	Base-Emitter Saturation Voltage *	I _C = -5A, I _B = -20mA I _C = -10A, I _B = -100mA			-2.5 -4	V V
V _F	Parallel Diode Forward Voltage *	I _F = -5A I _F = -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

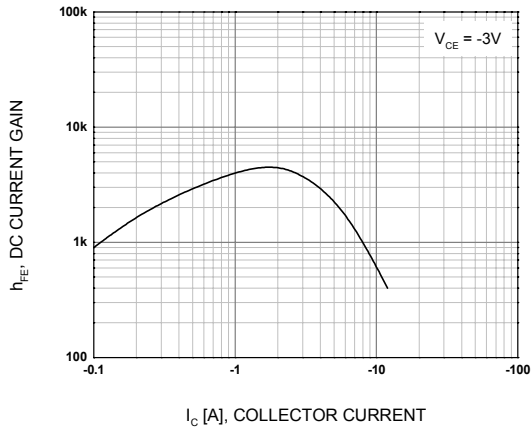


Figure 2. Collector-Emitter Saturation Voltage

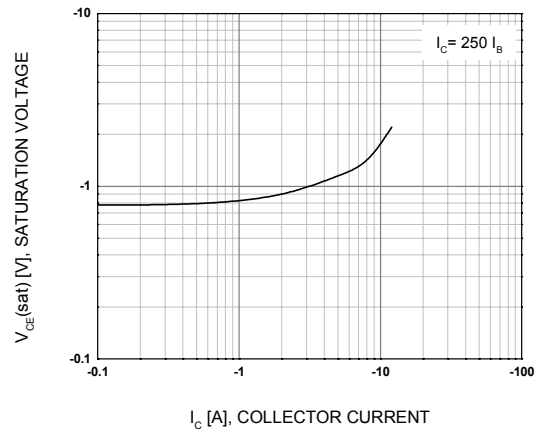


Figure 3. Base-Emitter On Voltage

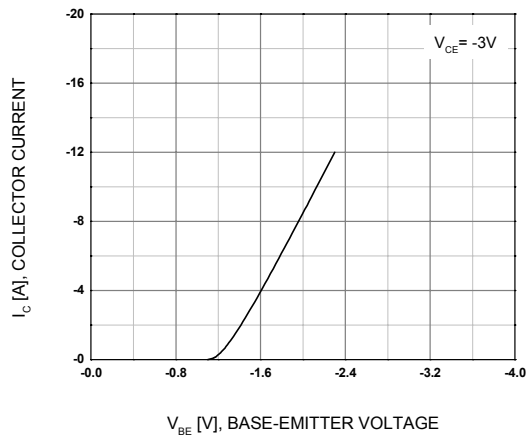
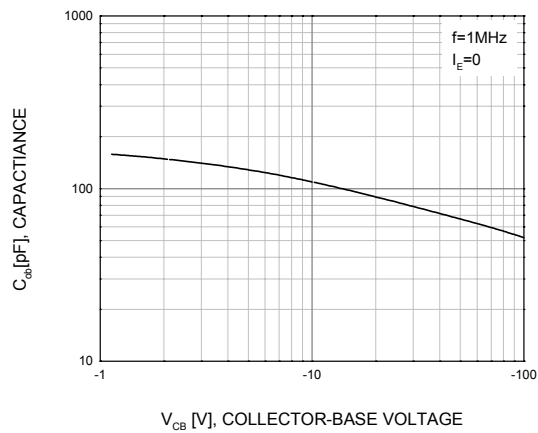


Figure 4. Output Capacitance



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EcoSPARK™	I ² C™	MSXPro™	RapidConnect™	UniFET™
E ² C MOS™	i-Lo™	OCX™	μSerDes™	VCX™
EnSigna™	ImpliedDisconnect™	OCXPro™	SILENT SWITCHER®	Wire™
FACT™	IntelliMAX™	OPTOLOGIC®	SMART START™	
FACT Quiet Series™		OPTOPLANAR™	SPM™	
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Programmable Active Droop™		Power247™	SuperSOT™-3	
		PowerEdge™	SuperSOT™-6	

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