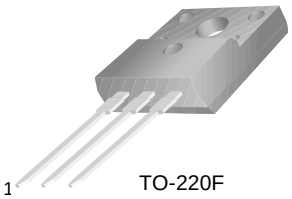
FAIRCHILD
SEMICONDUCTOR®

FJPF9020

Monolithic Construction With Built In Base-Emitter Shunt Resistors

- High Collector-Base Breakdown Voltage : BV_{CBO} = -550V
- High DC Current Gain : h_{FE} = 550 @ V_{CE} = -4V, I_C = -1A (Typ.)
- Industrial Use



TO-220F

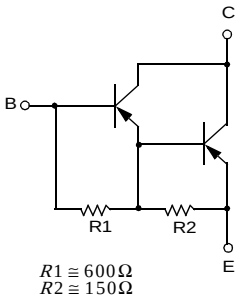
1.Base 2.Collector 3.Emitter

PNP Epitaxial Darlington Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	- 550	V
V_{CEO}	Collector-Emitter Voltage	- 550	V
V_{EBO}	Emitter-Base Voltage	- 6	V
I_C	Collector Current (DC)	- 2	A
I_{CP}	Collector Current (Pulse)	- 4	A
P_C	Collector Dissipation (T_C=25°C)	15	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Equivalent Circuit



$R1 \cong 600\Omega$
$R2 \cong 150\Omega$

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C = - 100uA, I_E = 0	- 550			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = - 500uA, I_B = 0	- 550			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = - 200mA, I_C = 0	-6			V
I_{CBO}	Collector Cut-off Current	V_{CE} = - 550V, I_E = 0			-100	μA
I_{EBO}	Emitter Cut-off Current	V_{EB} = - 6V, I_C = 0		-10	-20	mA
h_{FE}	DC Current Gain	V_{CE} = - 4V, I_C = - 1A	400	550	700	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = - 1A, I_B = - 20mA		-1.0	- 1.5	V
V_{BE}(sat)	Base-Emitter Saturation Voltage	I_C = - 1A, I_B = - 20mA		-1.5	- 2.0	V

Typical Characteristics

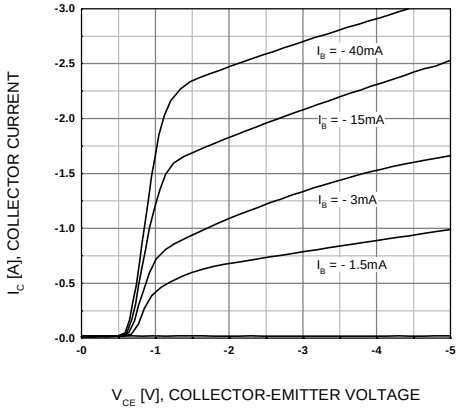


Figure 1. Static Characterstic

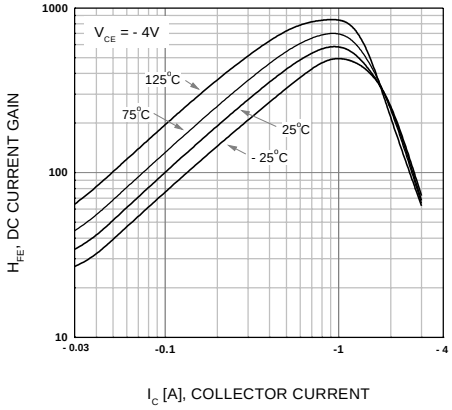


Figure 2. DC current Gain

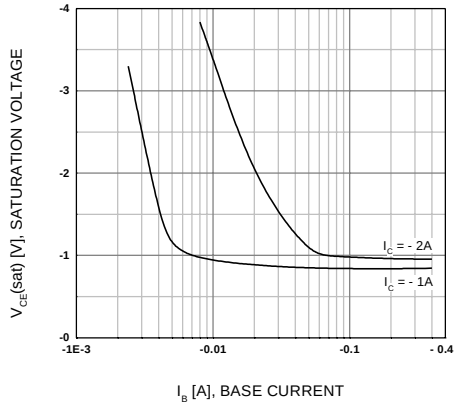


Figure 3. V_{CE}(sat) vs. I_B Characteristics

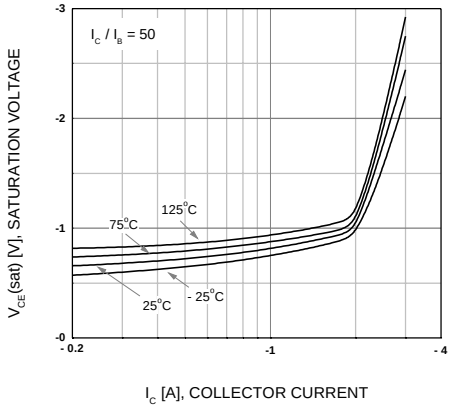


Figure 4. Collector-Emitter Saturation Voltage

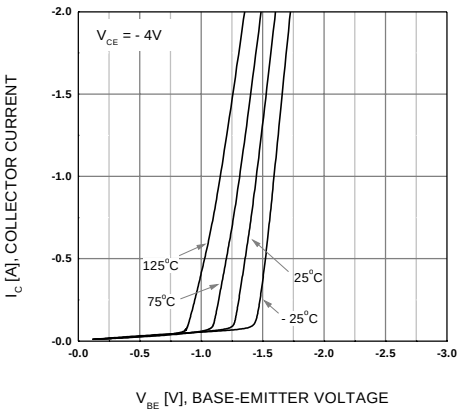


Figure 5. Base-Emitter On Voltage

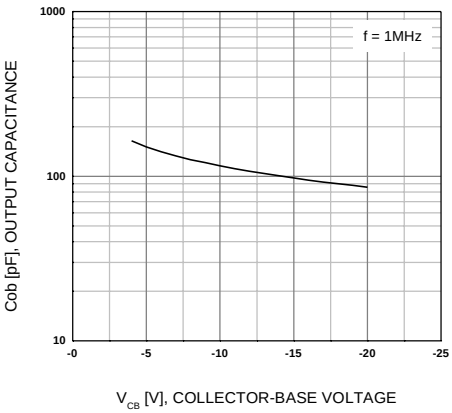


Figure 6. Output Capacitance

Typical Characteristics (Continued)

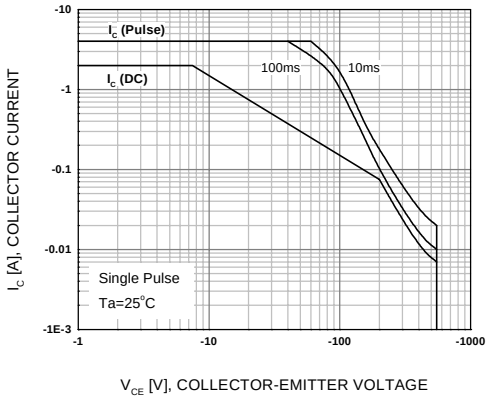


Figure 7. Forward Bias Safe Operating Area

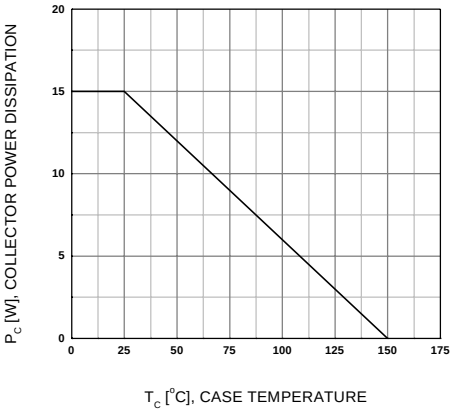
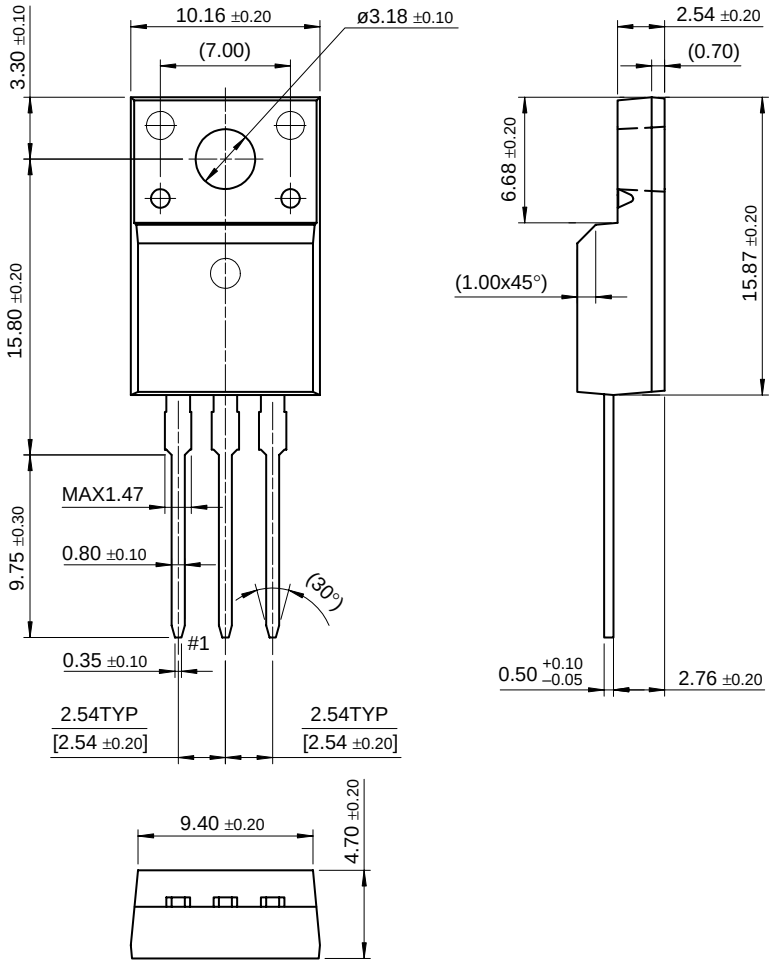


Figure 8. Power Derating

Package Demensions

TO-220F



Dimensions in Millimeters

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