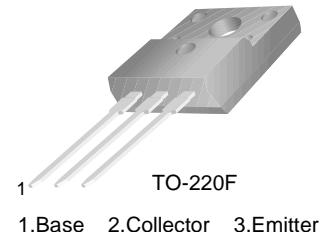


# FJPF9020

## Monolithic Construction With Built In Base-Emitter Shunt Resistors

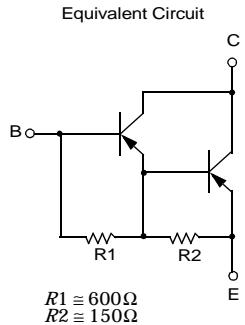
- High Collector-Base Breakdown Voltage :  $BV_{CBO} = -550V$
- High DC Current Gain :  $h_{FE} = 550$  @  $V_{CE} = -4V$ ,  $I_C = -1A$  (Typ.)
- Industrial Use



## PNP Epitaxial Darlington Transistor

### Absolute Maximum Ratings $T_C=25^\circ C$ 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 ( $T_C=25^\circ C$ )	15	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	- 55 ~ 150	$^\circ C$



### Electrical Characteristics $T_C=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = - 100\mu A$ , $I_E = 0$	- 550			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = - 500\mu A$ , $I_B = 0$	- 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	$\mu A$
$I_{EBO}$	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

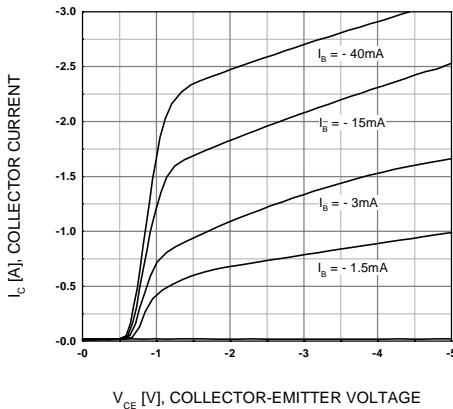


Figure 1. Static Characteristic

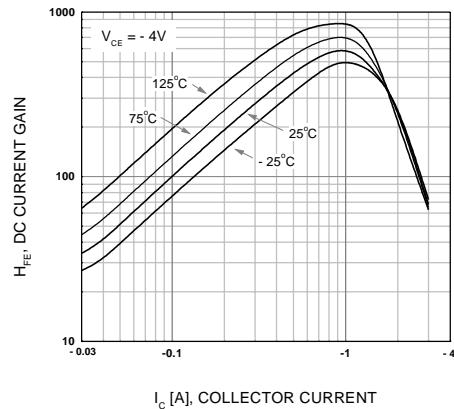


Figure 2. DC current Gain

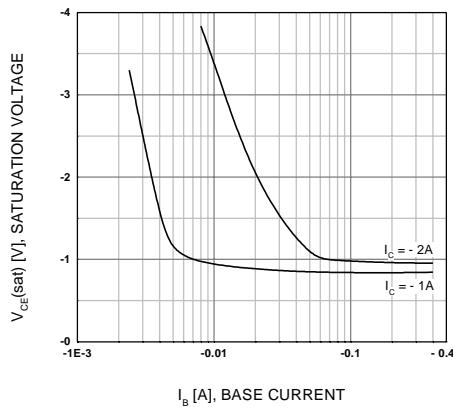


Figure 3.  $V_{CE(sat)}$  vs.  $I_B$  Characteristics

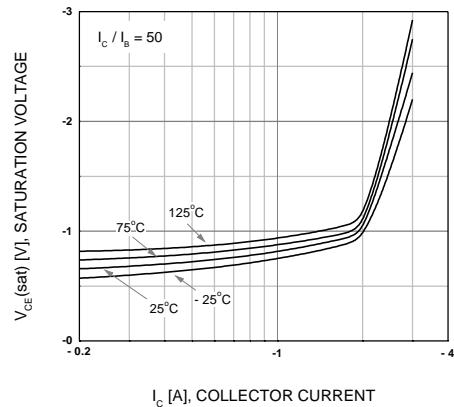


Figure 4. Collector-Emitter Saturation Voltage

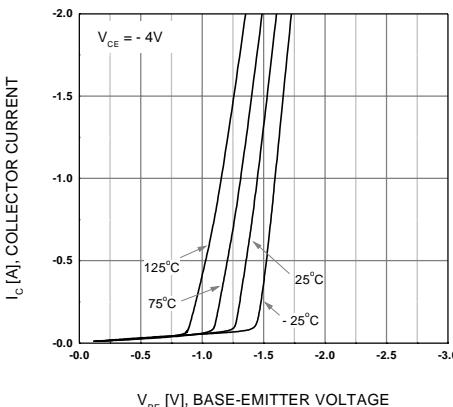


Figure 5. Base-Emitter On Voltage

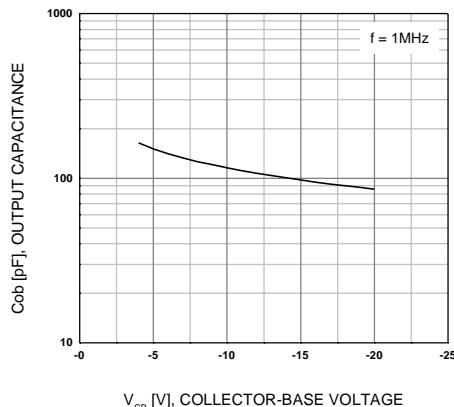


Figure 6. Output Capacitance

## Typical Characteristics (Continued)

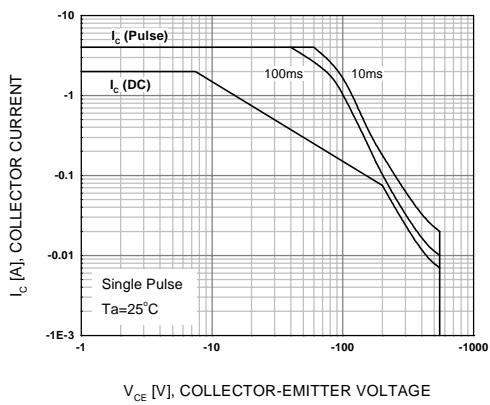


Figure 7. Forward Bias Safe Operating Area

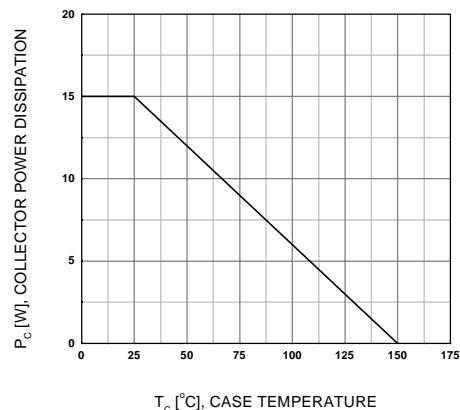
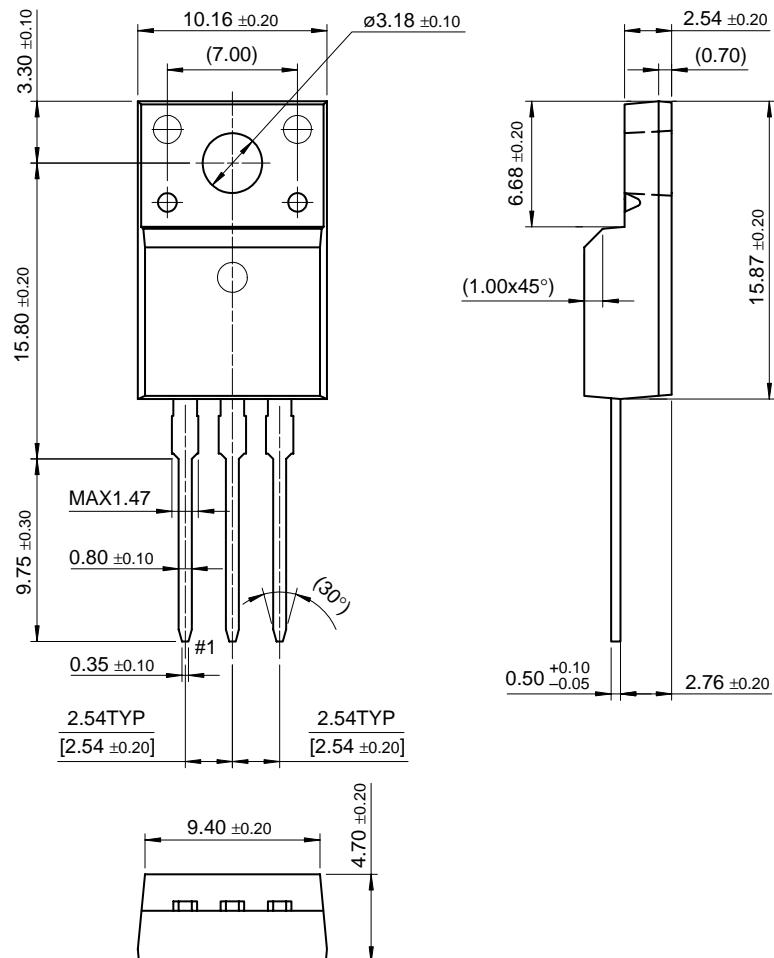


Figure 8. Power Derating

## Package Demensions

## TO-220F



Dimensions in Millimeters

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