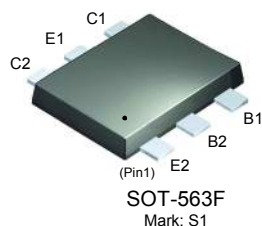


## FJYF2906

### PNP Multi-Chip General Purpose Amplifier

- Collector-Emitter Voltage:  $V_{CEO} = 40V$
- Amplifier and Switching Application
- E2 is on pin 1



### Absolute Maximum Ratings $T_A=25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CEO}$	Collector-Emitter Voltage	40	V
$V_{CBO}$	Collector-Base Voltage	40	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current - Continuous	150	mA
$T_J, T_{STG}$	Operating and Storage Junction Temperature Range	-55 ~ +150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
<b>Off Characteristics</b>						
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 1mA, I_B = 0$	40			V
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = 10\mu A, I_E = 0$	40			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = 10\mu A, I_C = 0$	5			V
$I_{CEX}$	Collector Cut-off Current	$V_{CE} = 30V, V_{BE} = 3V$			50	NA
<b>On Characteristics</b>						
$h_{FE}$	DC Current Gain *	$V_{CE} = 1V, I_C = 0.1mA$ $V_{CE} = 1V, I_C = 1mA$ $V_{CE} = 1V, I_C = 10mA$ $V_{CE} = 1V, I_C = 50mA$ $V_{CE} = 1V, I_C = 100mA$	60 80 100 60 30		300	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 10mA, I_B = 1mA$ $I_C = 50mA, I_B = 5mA$			0.3 0.5	V V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 10mA, I_B = 1mA$ $I_C = 50mA, I_B = 5mA$	0.65		0.95 1	V V
<b>Small Signal Characteristics</b>						
$f_T$	Current gain Bandwidth Product	$V_{CE} = 20V, I_C = 10mA$ $f = 100MHz$	250			MHz
$C_{obo}$	Output Capacitance	$V_{CB} = 5V, I_E = 0, f = 1MHz$			4.5	pF
$C_{ibo}$	Input Capacitance	$V_{EB} = 0.5V, I_C = 0, f = 1MHz$			10	pF

\* Pulse Test: Pulse Width  $\leq 300ms$ , Duty Cycle  $\leq 2.0\%$

**NOTE:** All voltage (V) and currents (A) are negative for PNP transistors.

**Thermal Characteristics**  $T_A=25^{\circ}\text{C}$  unless otherwise noted

Symbol	Parameter	FJYF2906	Units
$P_D$	Total Device Dissipation	150	mW
	Derate above 25°C	1.2	mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	833	°C/W

# Typical Characteristics

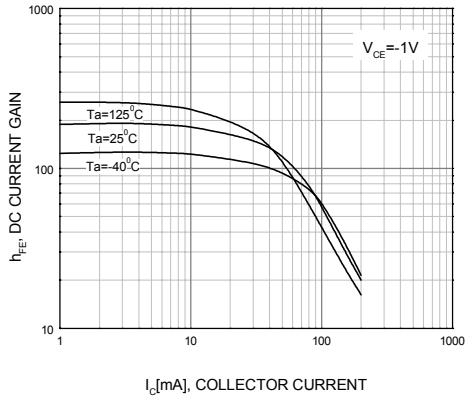


Figure 1. DC current Gain

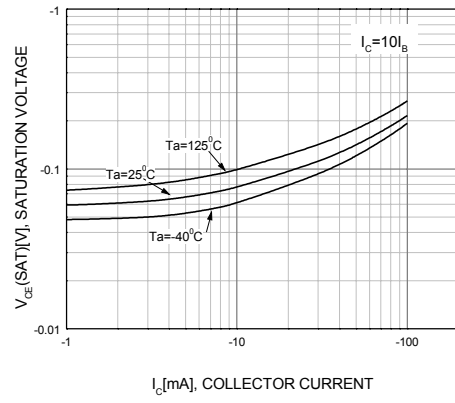


Figure 2. Collector-Emitter Saturation Voltage

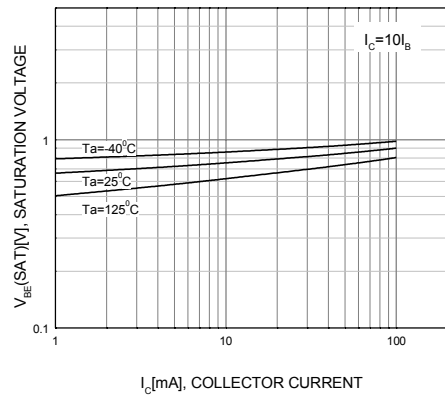


Figure 3. Base-Emitter Saturation Voltage

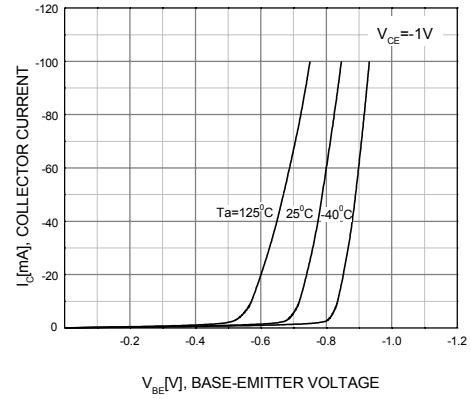


Figure 4. Base-Emitter On Voltage

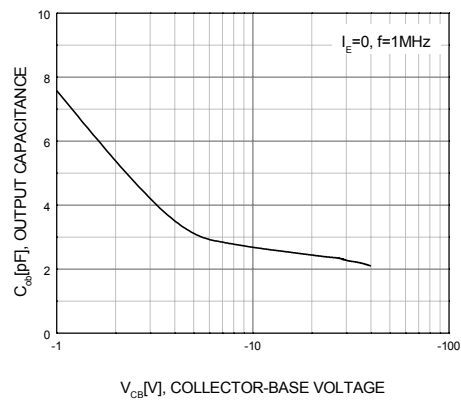
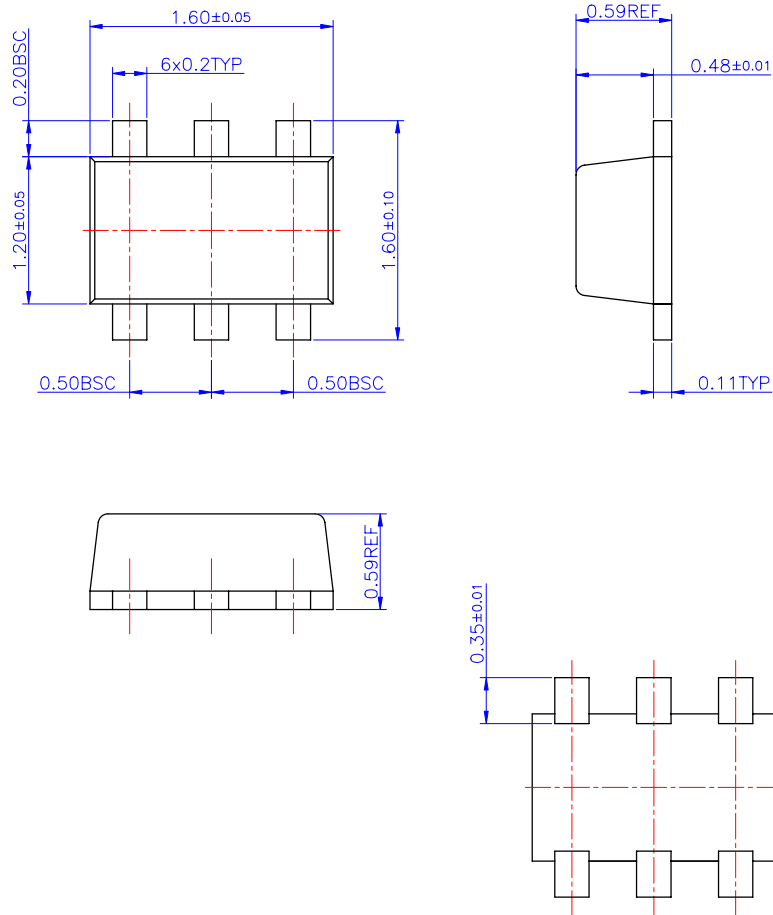


Figure 5. Collector Output Capacitance

# Package Dimensions

## SOT-563F



Dimensions in Millimeters

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