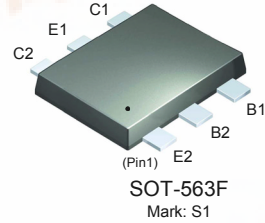


FAIRCHILD
SEMICONDUCTOR®

FJYF2906

PNP Multi-Chip General Purpose Amplifier

- Collector-Emitter Voltage: $V_{CE0} = 40V$
- 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_{CE0}	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
Off Characteristics						
BV_{CE0}	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
On Characteristics						
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
Small Signal Characteristics						
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

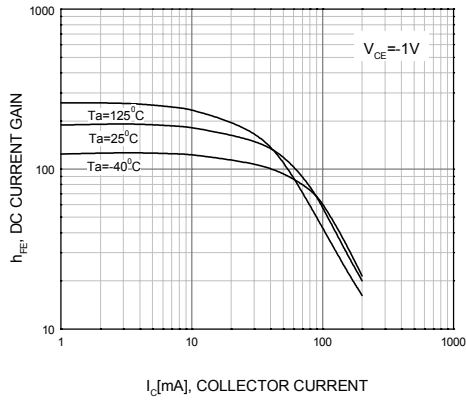


Figure 1. DC current Gain

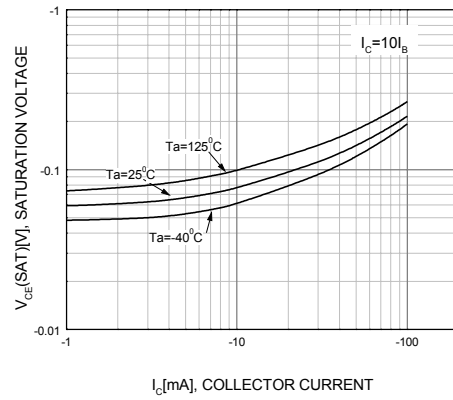


Figure 2. Collector-Emitter Saturation Voltage

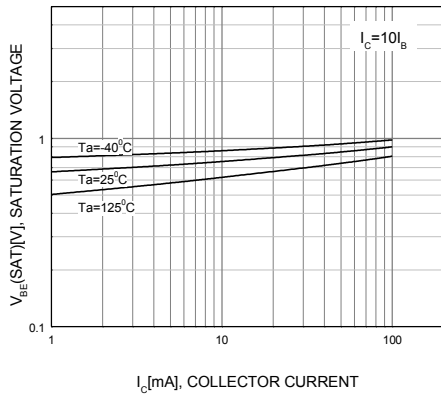


Figure 3. Base-Emitter Saturation Voltage

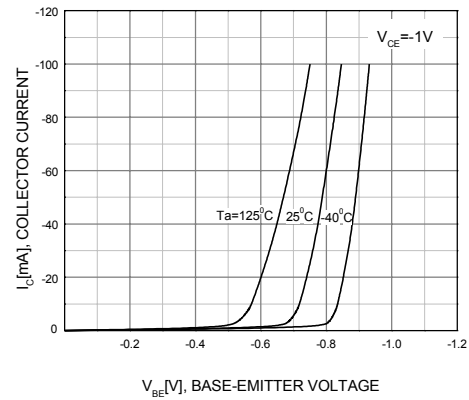


Figure 4. Base-Emitter On Voltage

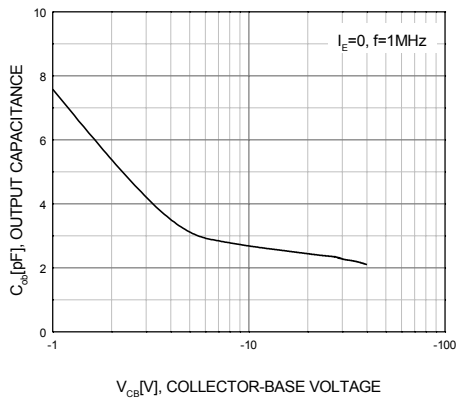
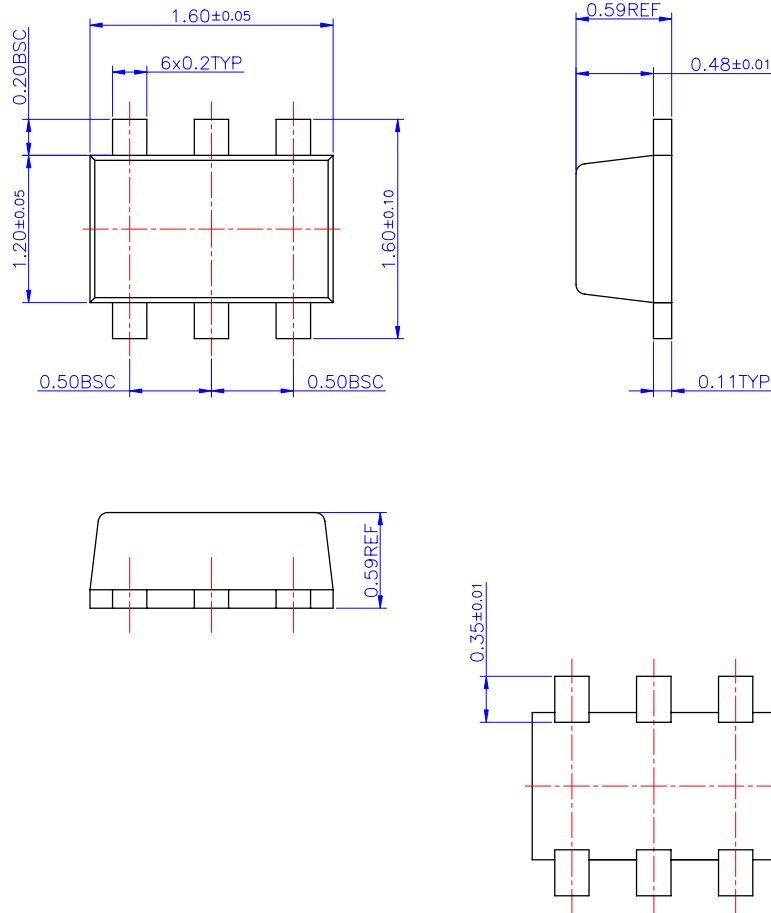


Figure 5. Collector Output Capacitance

Package Dimensions

SOT-563F



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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EnSigna™	I ² C™	OCX™	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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