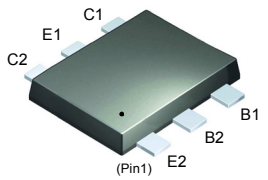
FAIRCHILD
SEMICONDUCTOR®

FJYF2906

PNP Multi-Chip General Purpose Amplifier

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



SOT-563F
Mark: S1

Absolute Maximum Ratings T_A=25°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	°C

Electrical Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristics						
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = 1mA, I_B = 0	40			V
BV_{CBO}	Collector-Base Breakdown Voltage	I_C = 10μA, I_E = 0	40			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = 10μA, 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 ≤ 300ms, Duty Cycle ≤ 2.0%

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

Thermal Characteristics T_A=25°C unless otherwise noted

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

Typical Characteristics

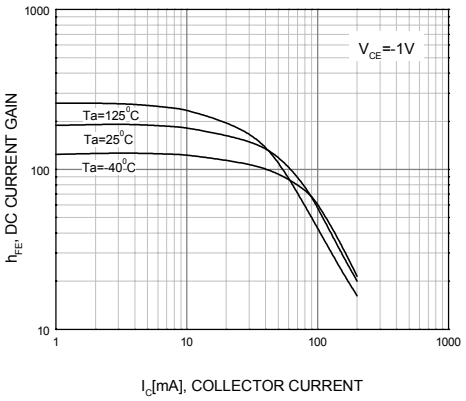


Figure 1. DC current Gain

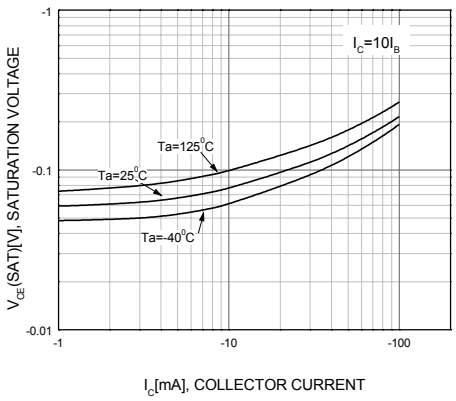


Figure 2. Collector-Emitter Saturation Voltage

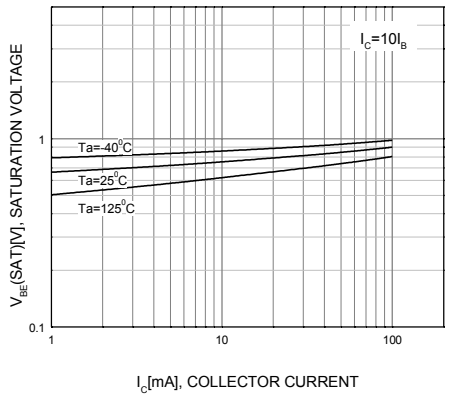


Figure 3. Base-Emitter Saturation Voltage

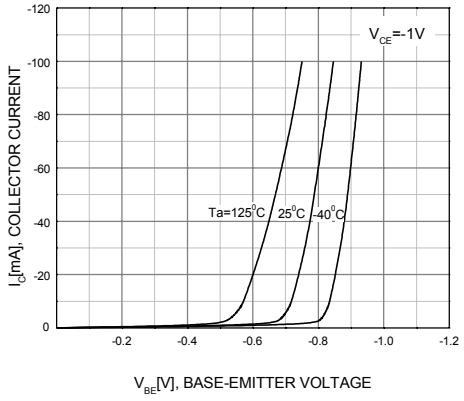


Figure 4. Base-Emitter On Voltage

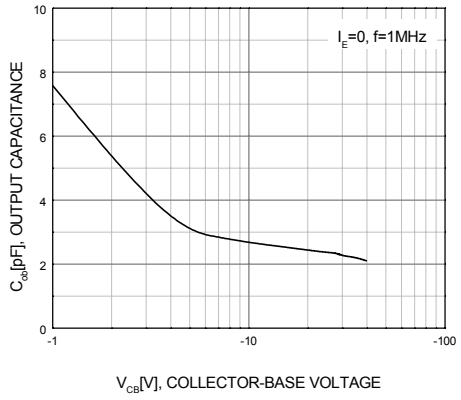
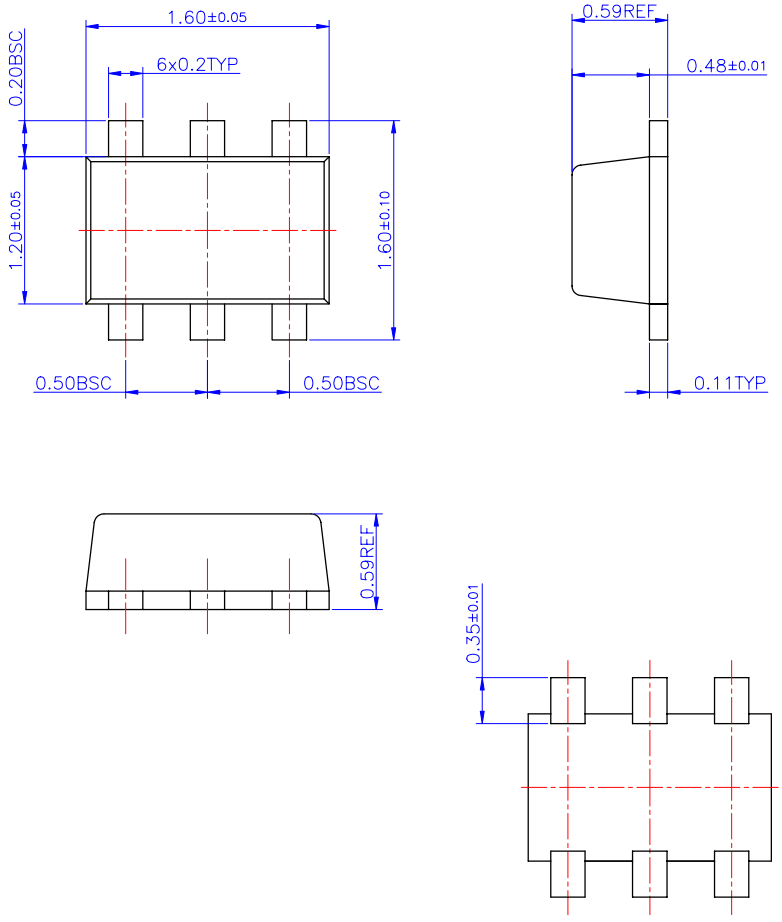


Figure 5. Collector Output Capacitance

Package Dimensions

SOT-563F



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E^2CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I^2C™	OCX™	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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