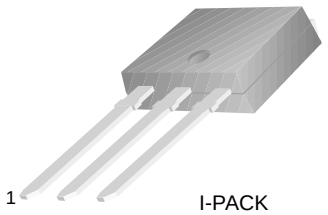
FAIRCHILD SEMICONDUCTOR™

FJU1615

For Output Amplifier of Electronic Flash Unit

- Low Collector-Emitter Saturation Voltage
- High Performance at Low Supply Voltage



I-PACK

1. Base 2. Collector 3. Emitter

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current	-10	A
P_C	Collector Dissipation	1	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=-100μA, I_E=0	-30			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C=-1mA, I_B=0	-20			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_C=-100μA, I_C=0	-7			V
I_{CBO}	Collector Cut-off Current	V_{CB}=-20V, I_E=0			-1.0	μA
I_{EBO}	Emitter Cut-off Current	V_{EB}=-7V, I_C=0			-1.0	μA
h_{FE1} h_{FE2}	DC Current Gain	V_{CE}=-2V, I_C=-0.5A V_{CE}=-2V, I_C=-4A	200 160		600	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=-4A, I_B=-0.05A		-0.17	-0.25	V
V_{BE} (sat)	Base-Emitter Saturation Voltage	I_C=-4A, I_B=-0.05A		-0.9	-1.2	V
f_T	Current Gain Band Width Product	V_{CE}=-5V, I_C=-1.5A		180		MHz
C_{ob}	Output Capacitance	V_{CB}=-10V, I_E=0, f=1MHz		220		pF
T_{ON}	Turn On Time	I_C=-5A, I_{B1}=-I_{B2}=-0.125A R_L=2Ω, V_{CC}=-10V		80		ns
T_{STG}	Storage Time			300		ns
T_F	Fall Time			60		ns

* Pulse Test : PW ≤ 350μs,Duty Cycle ≤ 2%

h_{FE1} Classification

Classification	L	K
h_{FE1}	200 ~ 400	300 ~ 600

Typical Characteristics

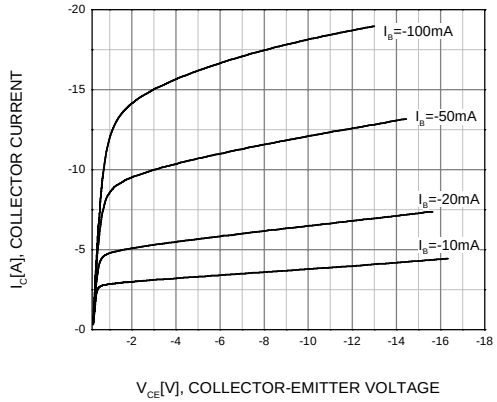


Fig. 1 Static Characteristic

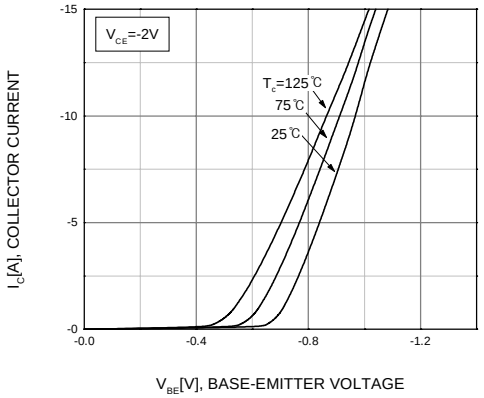


Fig. 2 Transfer Characteristic

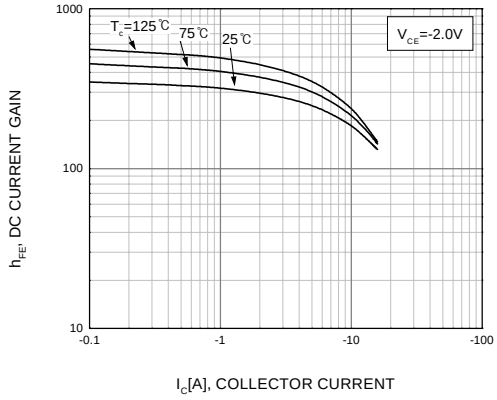


Fig. 3 DC Current Gain

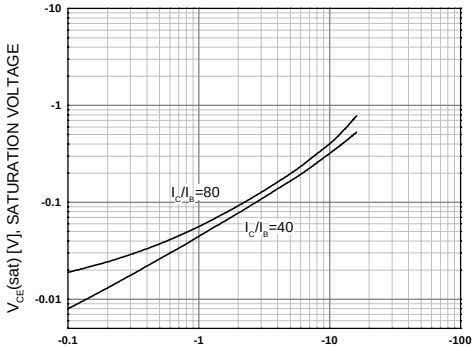


Fig. 4 Collector-Emitter Saturation Voltage

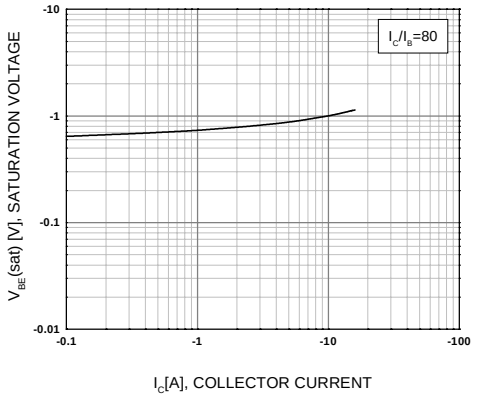


Fig. 5 Base-Emitter Saturation Voltage

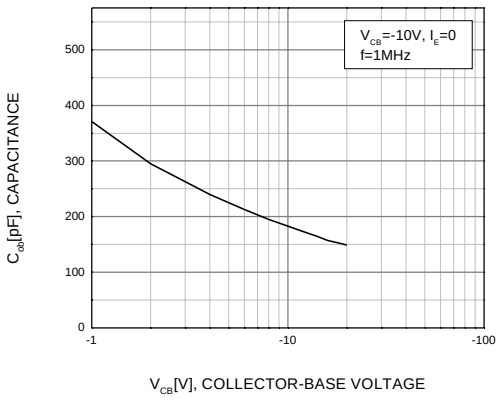


Fig. 6 Output Capacitance

Typical Characteristics (Continued)

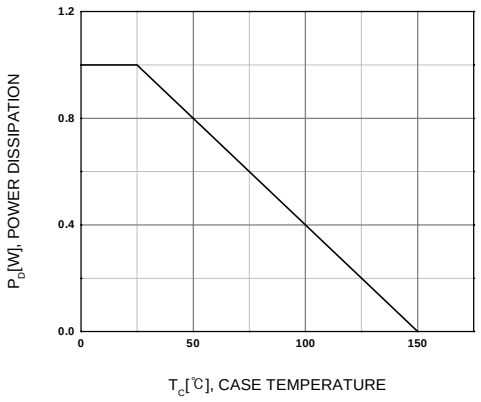


Fig. 7 Power Derating

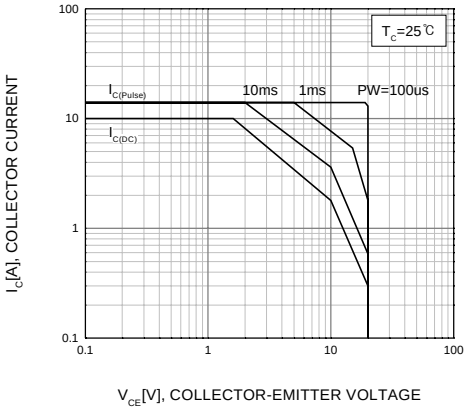
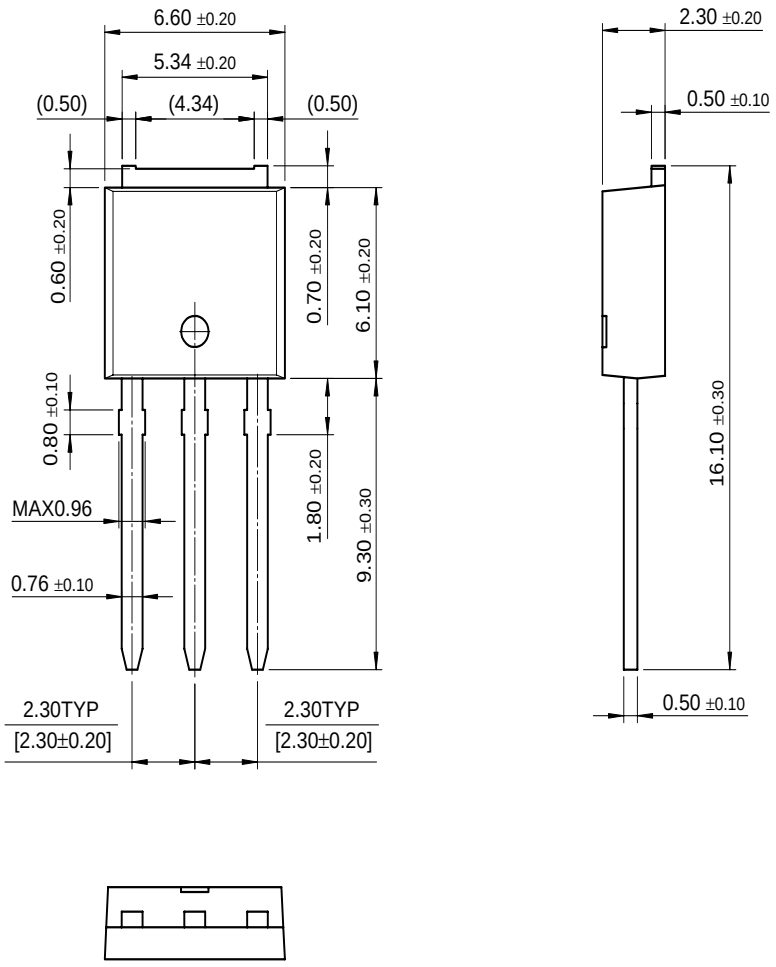


Fig. 8 Forward Bias Safe Operating Area

Package Dimensions

I-PAK



Dimensions in Millimeters

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