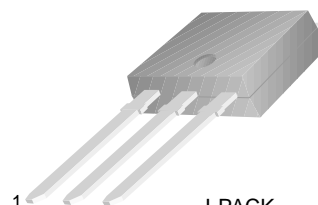


FJU1615

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 $T_a=25^\circ\text{C}$ 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	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

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

* Pulse Test : $PW \leq 350\mu\text{s}, \text{Duty Cycle} \leq 2\%$

h_{FE1} Classification

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

Typical Characteristics

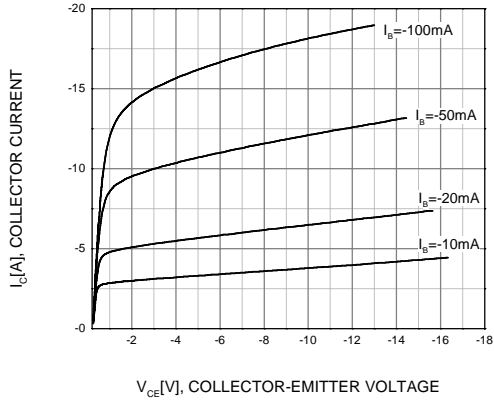


Fig. 1 Static Characteristic

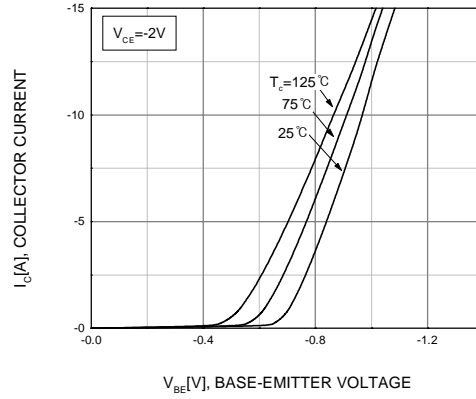


Fig. 2 Transfer Characteristic

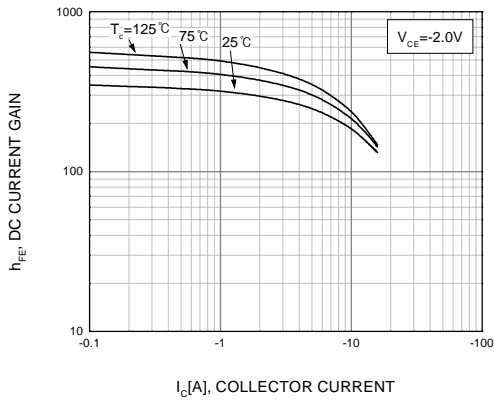


Fig. 3 DC Current Gain

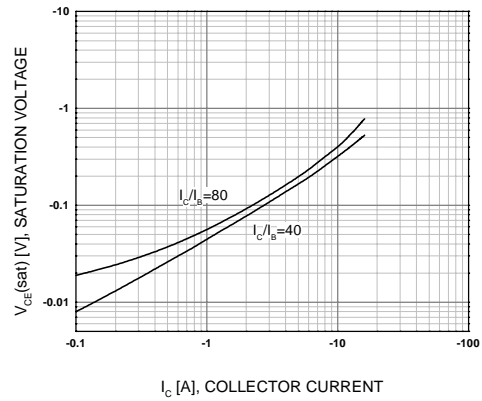


Fig. 4 Collector-Emitter Saturation Voltage

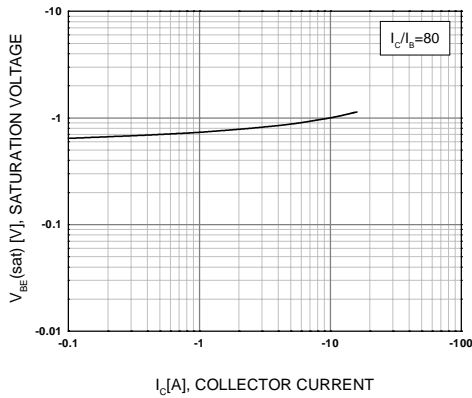


Fig. 5 Base-Emitter Saturation Voltage

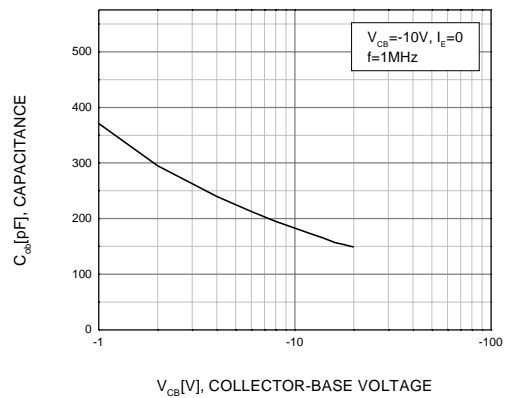


Fig. 6 Output Capacitance

Typical Characteristics (Continued)

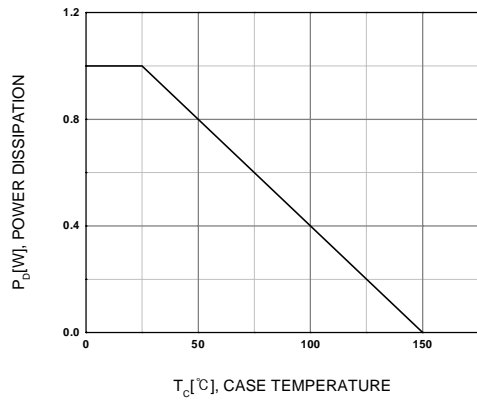


Fig. 7 Power Derating

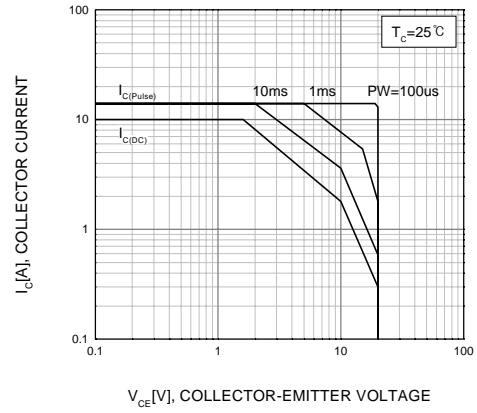
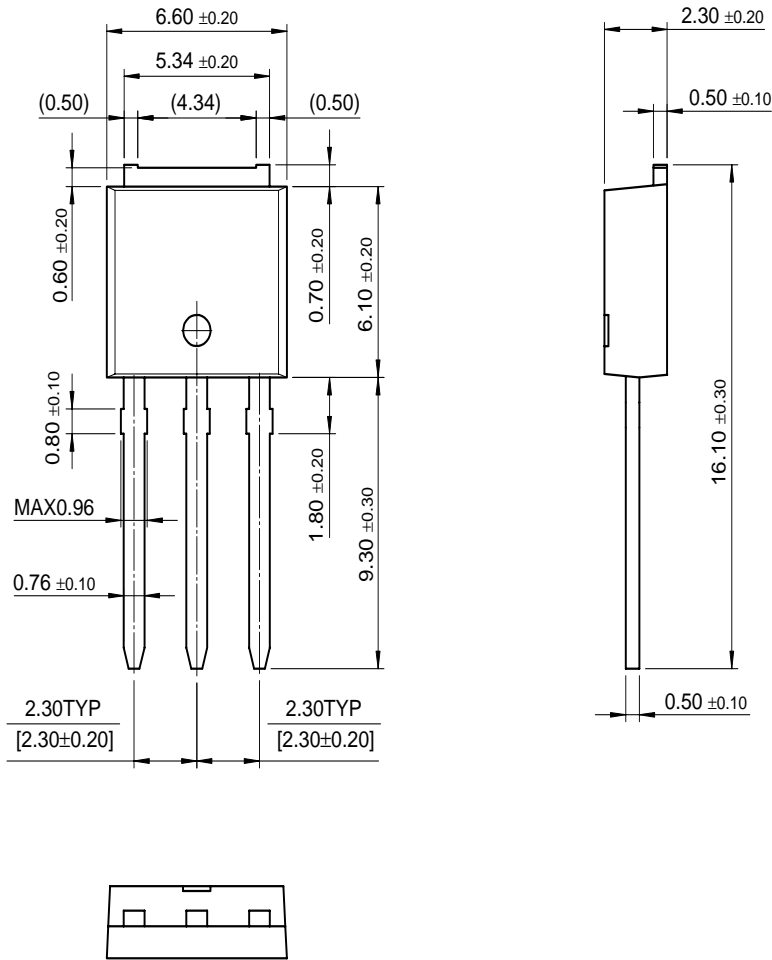


Fig. 8 Forward Bias Safe Operating Area

Package Dimensions

I-PAK



Dimensions in Millimeters

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E ² CMOS™	MICROWIRE™	LILENT SWITCHER®	
EnSigna™	OPTOLOGIC™	SMART START™	
FACT™	OPTOPLANAR™	SuperSOT™-3	
FACT Quiet Series™	PACMAN™	SuperSOT™-6	
FAST®	POP™	SuperSOT™-8	

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