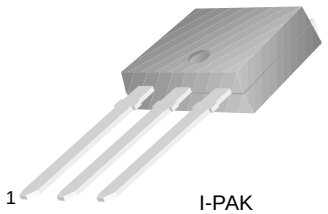
FAIRCHILD
SEMICONDUCTOR®

KSA1242

Medium Power Amplifier
Camera Flash Applications

- h_{FE} = 100~320 (V_{CE} = -2V, I_C = -0.5V)
- h_{FE} = 70 (Min.) (V_{CE} = -2V, I_C = -4A)
- Low Saturation Voltage: V_{CE}(sat) = -1V (Max.)



I-PAK

1. Base 2. Collector 3. Emitter

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	- 35	V
V_{CEO}	Collector-Emitter Voltage	- 20	V
V_{EBO}	Emitter-Base Voltage	- 8	V
I_C	Collector Current (DC)	- 5	A
I_{CP}	Collector Current (Pulse)	- 8	A
P_C	Collector Dissipation (T_C=25°C)	10	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = - 10mA, I_B = 0	- 20			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = - 1mA, I_C = 0	- 8			V
I_{CBO}	Collector Cut-off Current	V_{CB} = - 35V, I_E = 0			- 100	µA
I_{EBO}	Emitter Cut-off Current	V_{EB} = - 8V, I_C = 0			- 100	µA
h_{FE1} h_{FE2}	DC Current Gain	V_{CE} = - 2V, I_C = - 0.5A V_{CE} = - 2V, I_C = - 4A	100 70		320	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = - 4A, I_B = - 0.1A			- 1	V
V_{BE}(on)	Base-Emitter On Voltage	V_{CE} = - 2V, I_C = - 4A			- 1.5	V
f_T	Current Gain Bandwidth Product	V_{CE} = - 2V, I_C = - 0.5A		180		MHz
C_{ob}	Collector Output Capacitance	V_{CB} = - 10V, f = 1MHz		50		pF

h_{FE} Classification

Classification	O	Y
h_{FE1}	100 ~ 200	160 ~ 320

Typical Characteristics

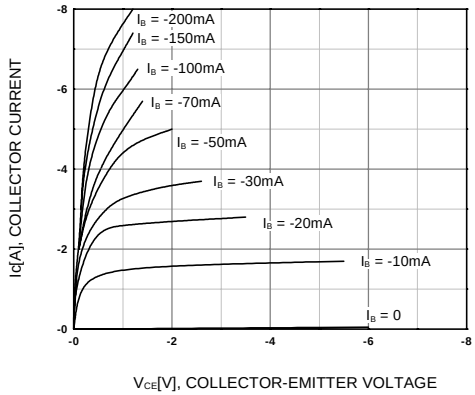


Figure 1. Static Characateristic

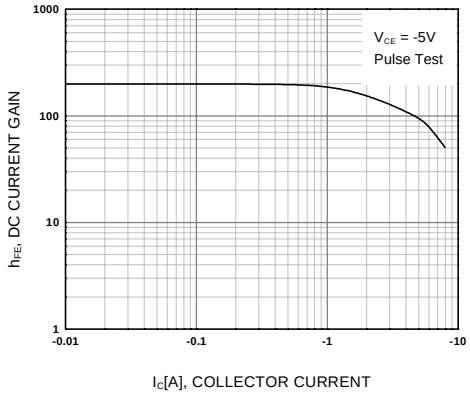


Figure 2. DC current Gain

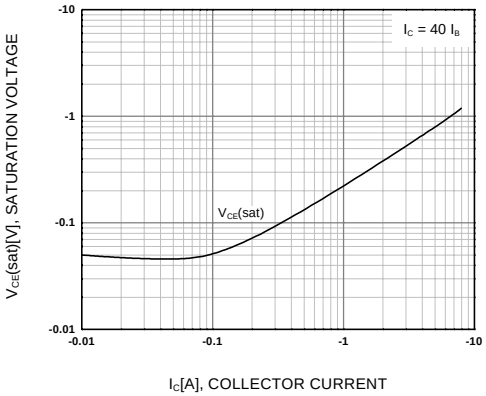


Figure 3. Collector-Emitter Saturation Voltage

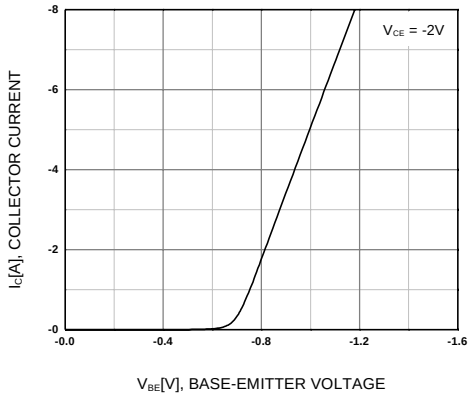


Figure 4. Base-Emitter On Voltage

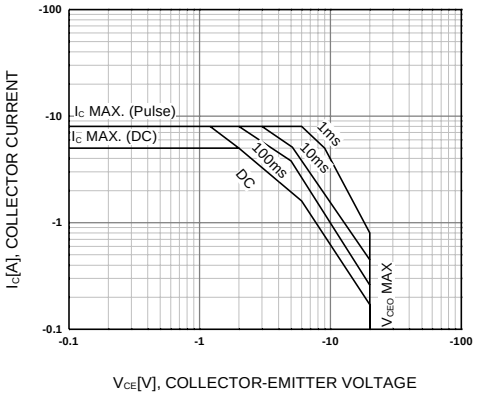


Figure 5. Safe Operating Area

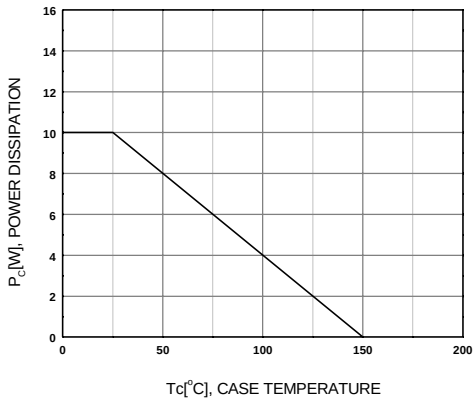
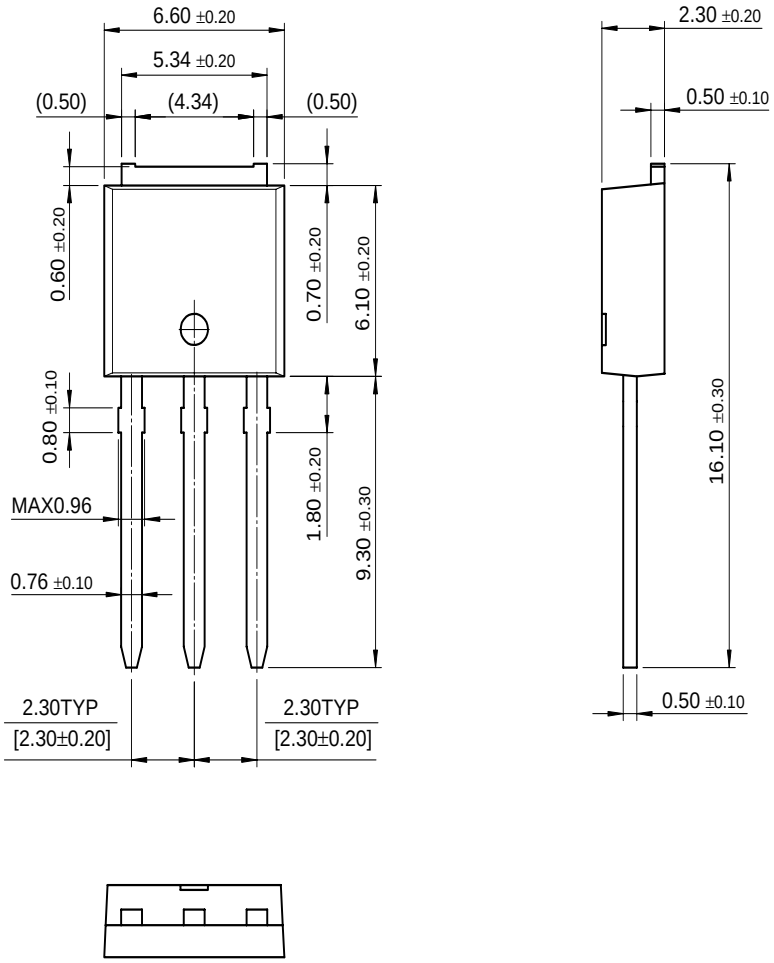


Figure 6. Power Derating

Package Demensions

I-PAK



Dimensions in Millimeters

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E^2CMOS™	LittleFET™	QT Optoelectronics™	TinyLogic™
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