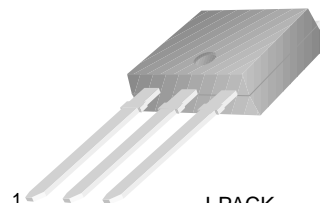


**Power Amplifier Applications**

- Complement to KSC3073



I-PACK  
1. Base 2. Collector 3. Emitter

**PNP Epitaxial Silicon Transistor**

**Absolute Maximum Ratings**  $T_C=25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Ratings	Units
$V_{CBO}$	Collector-Base Voltage	- 30	V
$V_{CEO}$	Collector-Emitter Voltage	- 30	V
$V_{EBO}$	Emitter-Base Voltage	- 5	V
$I_B$	Base Current	- 0.6	A
$I_C$	Collector Current	- 3	A
$P_C$	Collector Dissipation ( $T_a=25^\circ\text{C}$ )	1	W
$P_C$	Collector Dissipation ( $T_C=25^\circ\text{C}$ )	10	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}, I_B = 0$	- 30			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = -1\text{mA}, I_C = 0$	- 5			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = -20\text{V}, I_E = 0$			- 1	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = -5\text{V}, I_C = 0$			- 1	$\mu\text{A}$
$h_{FE1}$ $h_{FE2}$	DC Current Gain	$V_{CE} = -2\text{V}, I_C = -0.5\text{A}$ $V_{CE} = -2\text{V}, I_C = -2.5\text{A}$	70 25		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}, I_B = -0.2\text{A}$		- 0.3	- 0.8	V
$V_{BE(on)}$	Base-Emitter ON Voltage	$V_{CE} = -2\text{V}, I_C = -0.5\text{A}$		- 0.75	- 1	V
$f_T$	Current Gain Bandwidth Product	$V_{CE} = -2\text{V}, I_C = -0.5\text{A}$		100		MHz
$C_{ob}$	Output Capacitance	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		40		pF

**$h_{FE}$  Classification**

Classification	O	Y
$h_{FE1}$	70 ~ 140	120 ~ 240

# Typical Characteristics

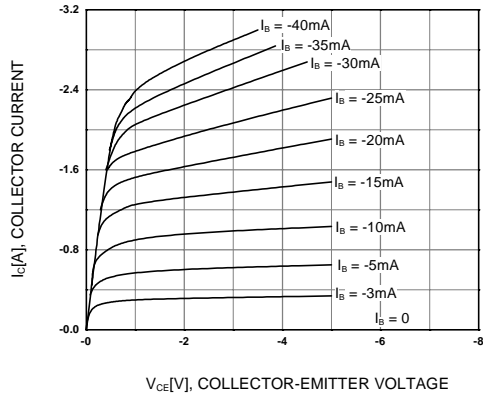


Figure 1. Static Characteristic

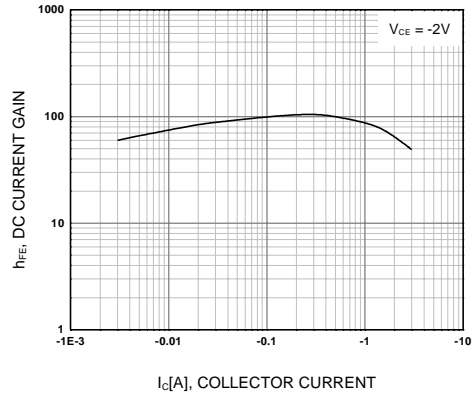


Figure 2. DC current Gain

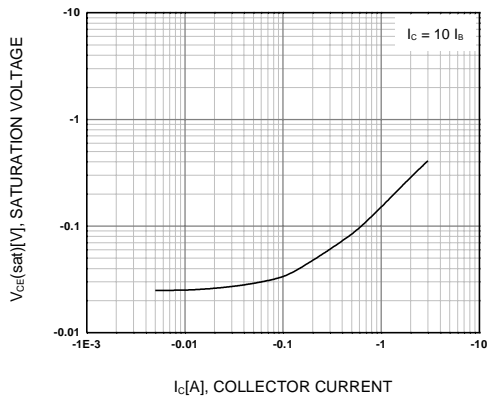


Figure 3. Collector-Emitter Saturation Voltage

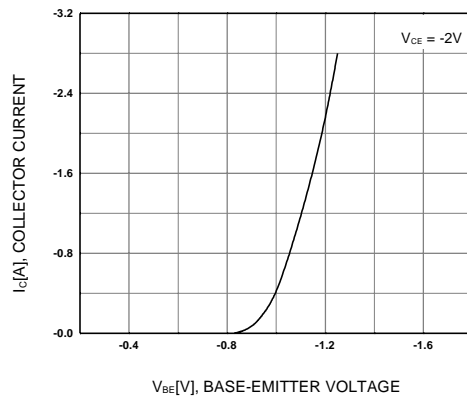


Figure 4. Base-Emitter On Voltage

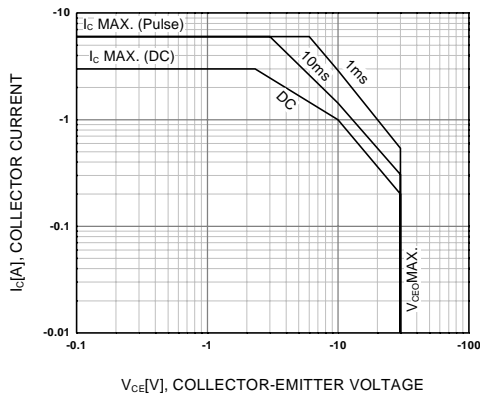


Figure 5. Safe Operating Area

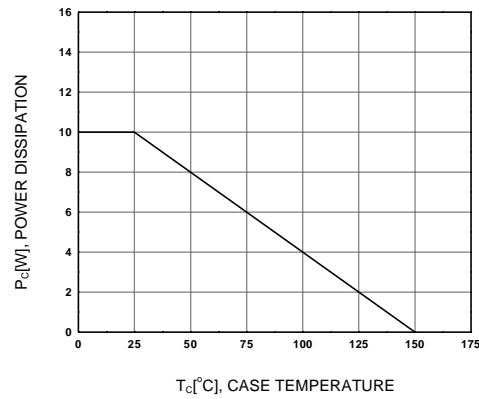
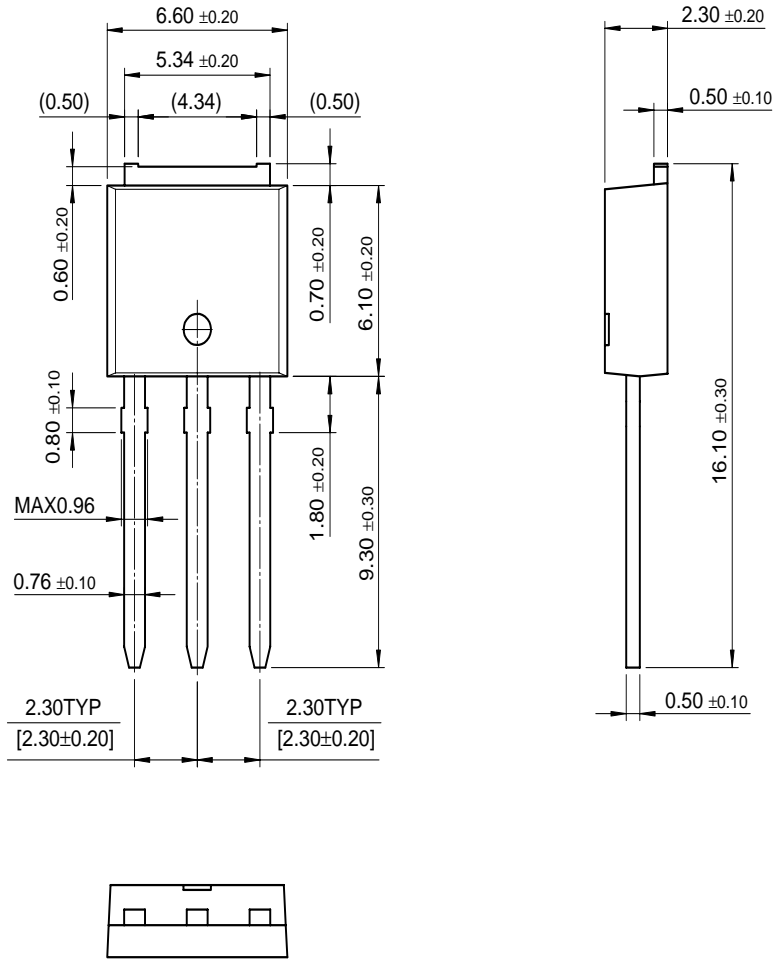


Figure 6. Power Derating

# Package Dimensions

## I-PAK



Dimensions in Millimeters

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FASTr™	SuperSOT™-3	
GTO™	SuperSOT™-6	

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