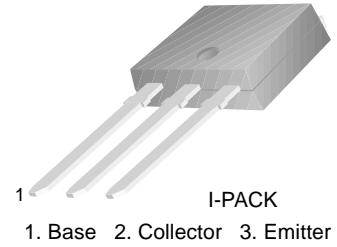


## KSA1243

### Power Amplifier Applications

- Complement to KSC3073



### 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	
$V_{CE(\text{sat})}$	Collector-Emitter Saturation Voltage	$I_C = - 2\text{A}$ , $I_B = - 0.2\text{A}$		- 0.3	- 0.8	V
$V_{BE(\text{on})}$	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

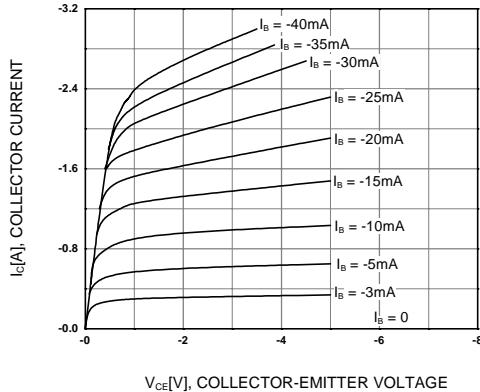


Figure 1. Static Characteristic

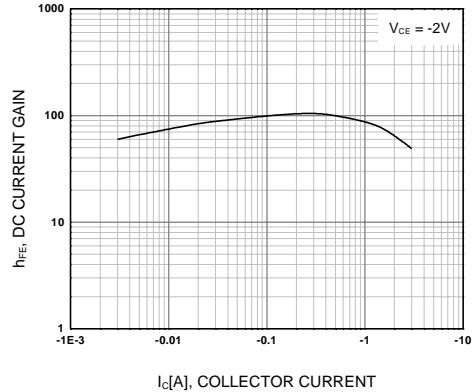


Figure 2. DC current Gain

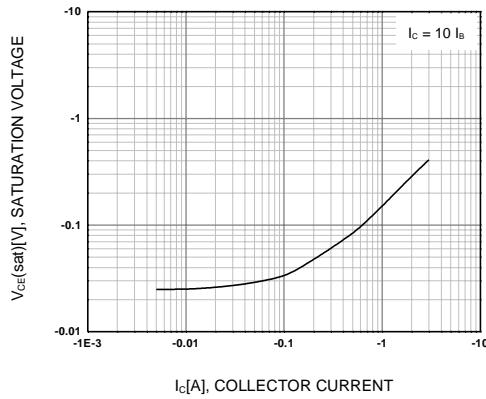


Figure 3. Collector-Emitter Saturation Voltage

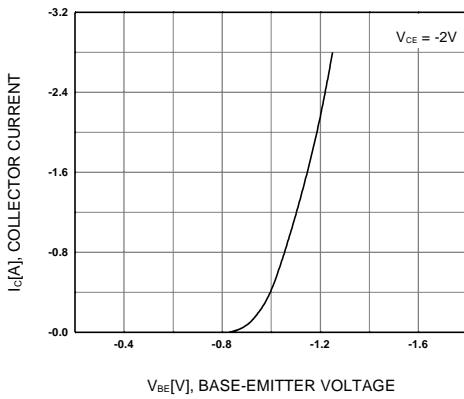


Figure 4. Base-Emitter On Voltage

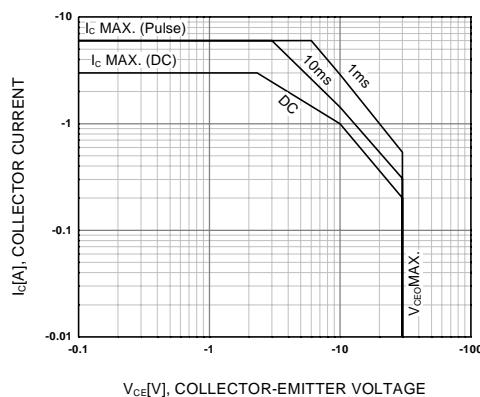


Figure 5. Safe Operating Area

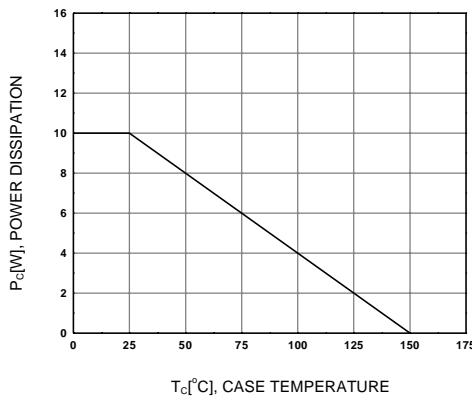
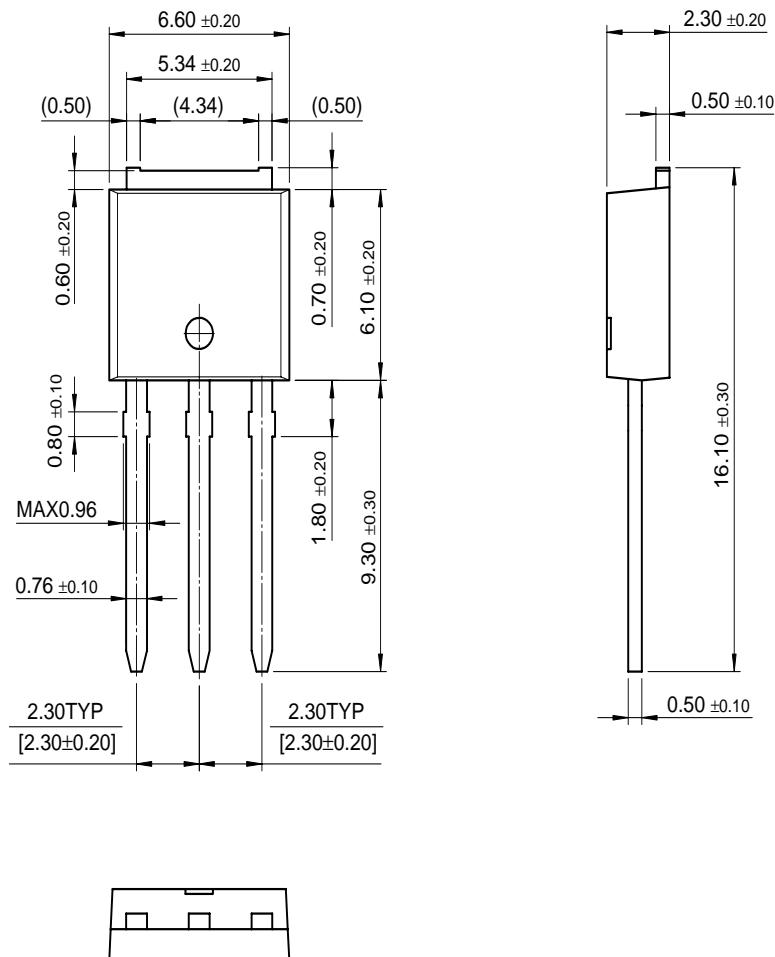


Figure 6. Power Derating

## Package Demensions

## I-PAK



Dimensions in Millimeters

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FACT Quiet Series <sup>TM</sup>	QS <sup>TM</sup>	
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