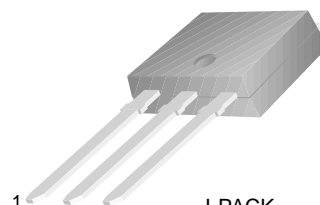


Power Amplifier Applications

- Low Collector-Emitter Saturation Voltage
- Complement to KSA 1241



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

NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	2	A
I_B	Base Current	1	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

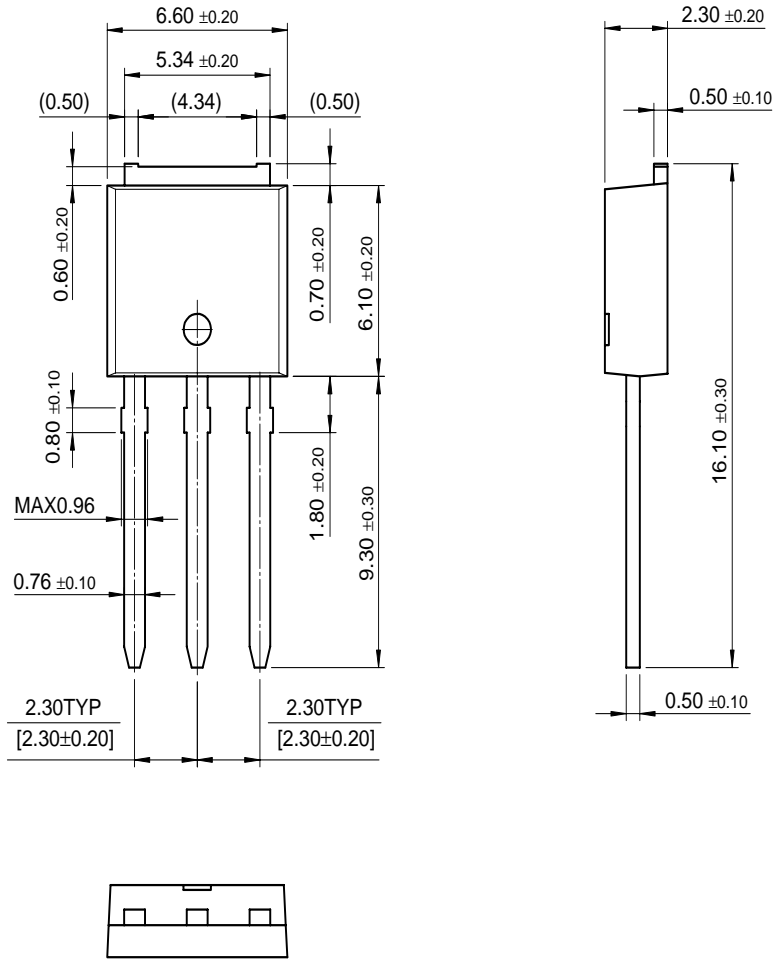
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 10\text{mA}, I_B = 0$	50			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 50\text{V}, I_E = 0$			1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 5\text{V}, I_C = 0$			1	μA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = 2\text{V}, I_C = 0.5\text{A}$ $V_{CE} = 2\text{V}, I_C = 1.5\text{A}$	70 40		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 1\text{A}, I_B = 0.05\text{A}$			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 1\text{A}, I_B = 0.05\text{A}$			1.2	V
f_T	Current Gain Bandwidth Product	$V_{CE} = 2\text{V}, I_C = 0.5\text{A}$		100		MHz
C_{ob}	Output Capacitance	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		30		pF
t_{ON}	Turn ON Time	$V_{CC} = 30\text{V}, I_C = 1\text{A}$		0.1		μs
t_{STG}	Storage Time	$I_{B1} = -I_{B2} = 0.05\text{A}$		1		μs
t_F	Fall Time	$R_L = 30\Omega$		0.1		μs

h_{FE1} Classification

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

Package Dimensions

I-PAK



Dimensions in Millimeters

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E ² CMOS™	PowerTrench®	VCX™
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KSC3076

NPN Epitaxial Silicon Transistor

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Applications

Power Amplifier

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
KSC3076YTU	Full Production	\$0.302	TO-251(IPAK)	3	RAIL

* 1,000 piece Budgetary Pricing

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