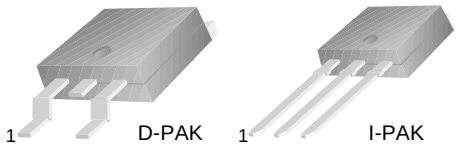
FAIRCHILD
SEMICONDUCTOR®

KSH3055

General Purpose Amplifier
Low Speed Switching Applications
D-PAK for Surface Mount Applications

- Lead Formed for Surface Mount Applications (No Suffix)
- Straight Lead (I-PAK, " -I " Suffix)
- Electrically Similar to Popular KSE3055T
- DC Current Gain Specified to 10A
- High Current Gain - Bandwidth Product:
  f_T = 2MHz (MIN), I_C = 500mA



1.Base 2.Collector 3.Emitter

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	10	A
I_B	Base Current	6	A
P_C	Collector Dissipation (T_C=25°C)	20	W
	Collector Dissipation (T_a=25°C)	1.75	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.	Max.	Units
V_{CEO} (sus)	* Collector-Emitter Sustaining Voltage	I_C = 30mA, I_B = 0	60		V
I_{CEO}	Collector Cut-off Current	V_{CE} = 30V, I_E = 0		50	μA
I_{CBO}	Collector Cut-off Current	V_{CB} = 70V, I_E = 0		2	mA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 5V, I_C = 0		0.5	mA
h_{FE}	*DC Current Gain	V_{CE} = 4V, I_C = 4A V_{CE} = 4V, I_C = 10A	20 5	100	
V_{CE}(sat)	* Collector-Emitter Saturation Voltage	I_C = 4A, I_B = 0.4A I_C = 10A, I_B = 3.3A		1.1 8	V V
V_{BE}(on)	* Base-Emitter ON Voltage	V_{CE} = 4V, I_C = 4A		1.8	V
f_T	Current Gain Bandwidth Product	V_{CE} = 10V, I_C = 500mA	2		MHz

* Pulse Test: PW≤300μs, Duty Cycle≤2%

Typical Characteristics

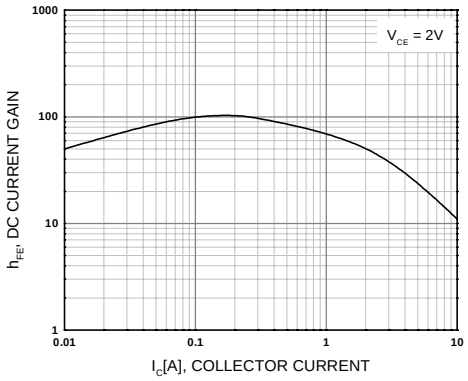


Figure 1. DC current Gain

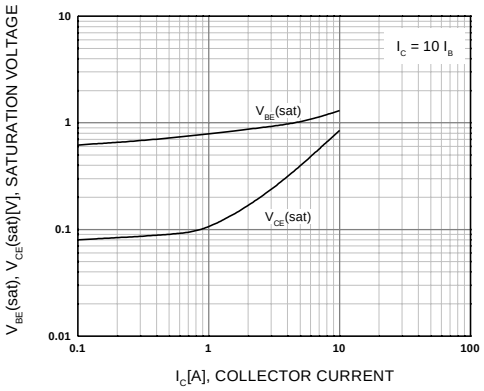


Figure 2. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

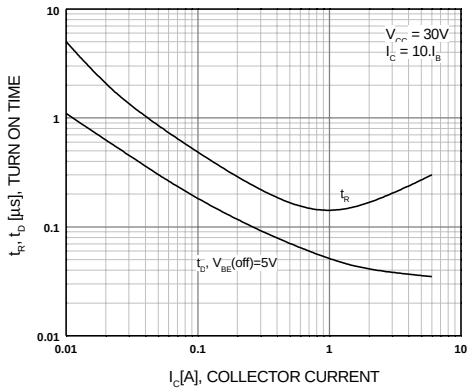


Figure 3. Turn On Time

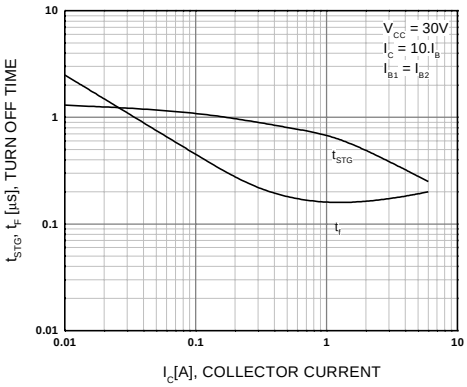


Figure 4. Turn Off Time

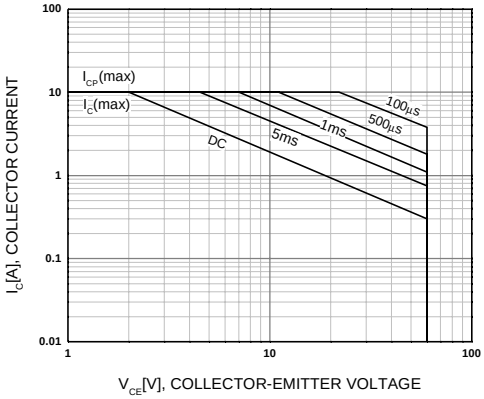


Figure 5. Safe Operating Area

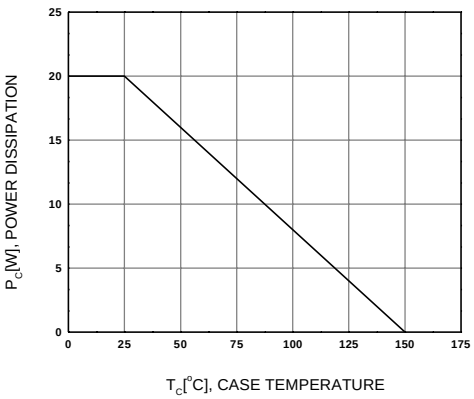
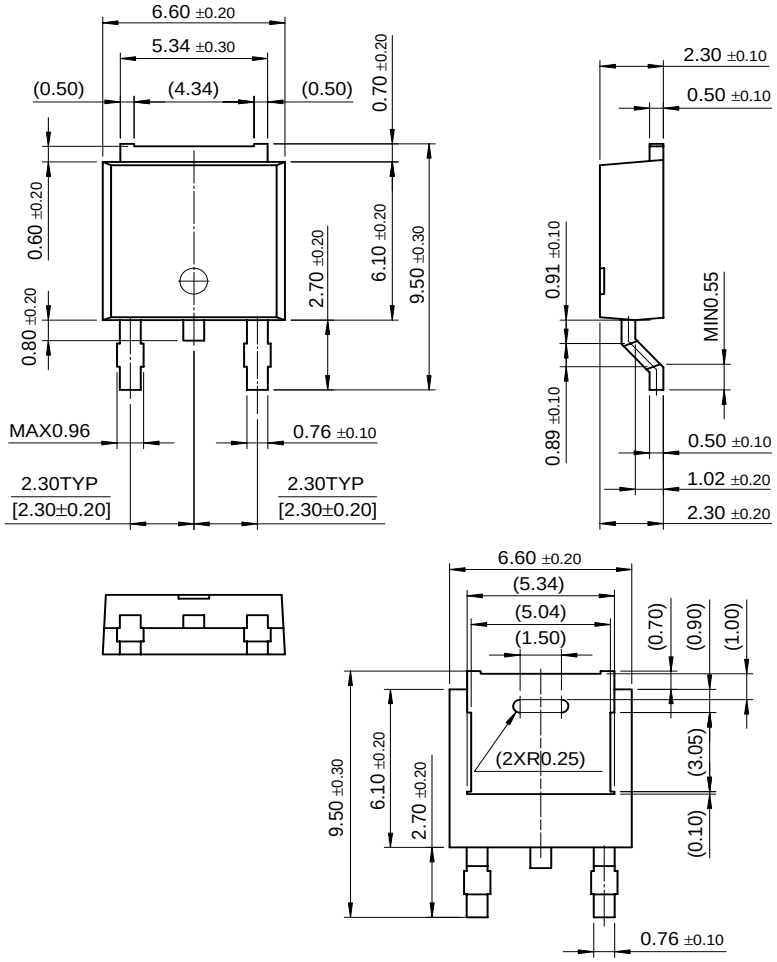


Figure 6. Power Derating

Package Demensions

D-PAK



Dimensions in Millimeters

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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Features

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Applications

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D-PAK for Surface Mount

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
KSH3055TF	Full Production	$0.339	TO-252(DPAK)	2	TAPE REEL
KSH3055TM	Full Production	$0.339	TO-252(DPAK)	2	TAPE REEL

* 1,000 piece Budgetary Pricing

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KSH3055I
NPN Epitaxial Silicon Transistor

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
KSH3055ITU	Full Production	$0.339	TO-251(IPAK)	3	RAIL

* 1,000 piece Budgetary Pricing

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