

KSD471A

KSD471A

Audio Frequency Power Amplifier

- Complement to KSB564A
- Collector Current : $I_C=1A$
- Collector Power Dissipation : $P_C=800mW$
- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	1	A
P_C	Collector Power Dissipation	800	mW
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

Electrical Characteristics $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=100\mu A, I_E=0$	40			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=10mA, I_B=0$	30			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=100\mu A, I_C=0$	5			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=30V, I_E=0$			0.1	μA
h_{FE}	DC Current Gain	$V_{CE}=1V, I_C=100mA$	70		400	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1A, I_B=0.1A$			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=1A, I_B=0.1A$			1.2	V
f_T	Current Gain BandWidth Product	$V_{CE}=6V, I_C=10mA$		130		MHz
C_{ob}	Output Capacitance	$V_{CB}=6V, I_E=0, f=1MHz$		16		pF

h_{FE} Classification

Classification	O	Y	G
h_{FE}	70 ~ 140	120 ~ 240	200 ~ 400

Typical Characteristics

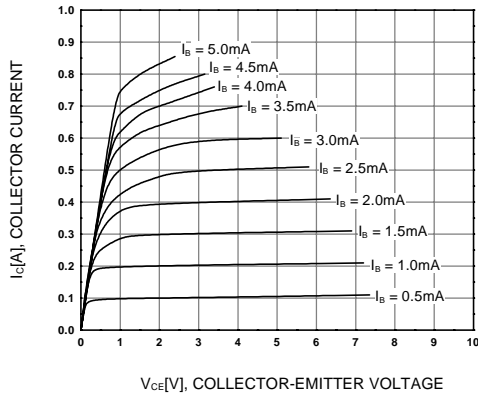


Figure 1. Static Characteristic

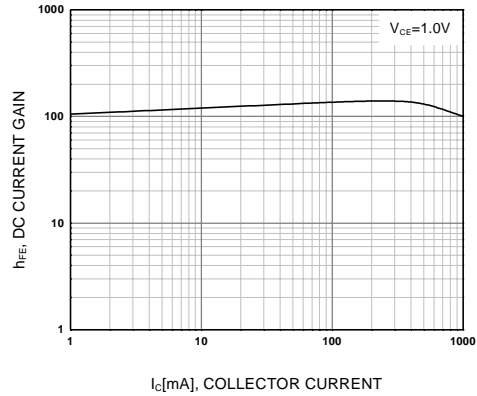


Figure 2. DC current Gain

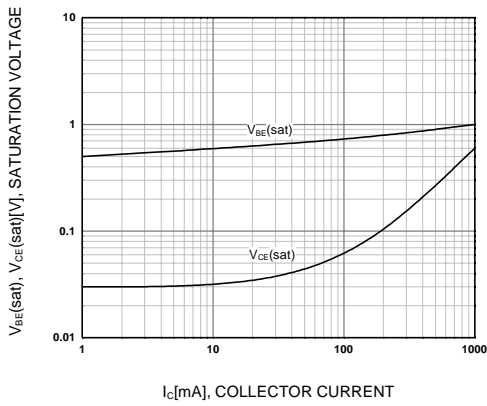


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

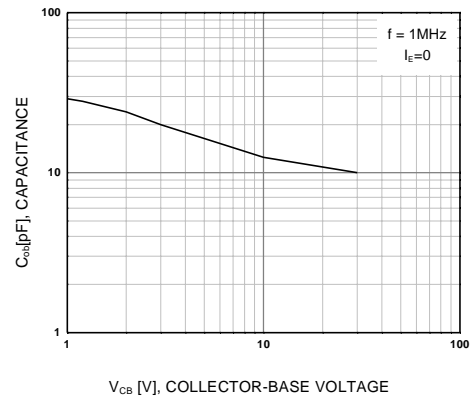


Figure 4. Collector Output Capacitance

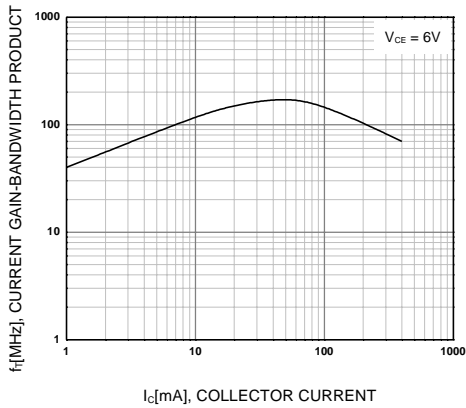


Figure 5. Current Gain Bandwidth Product

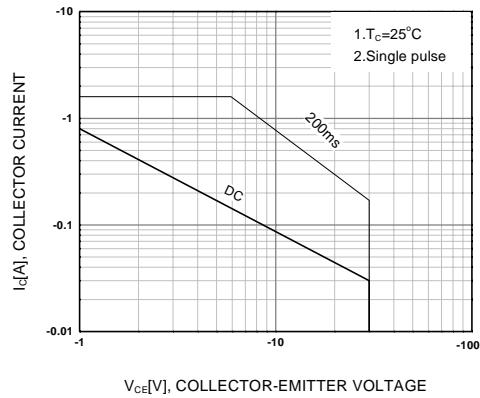
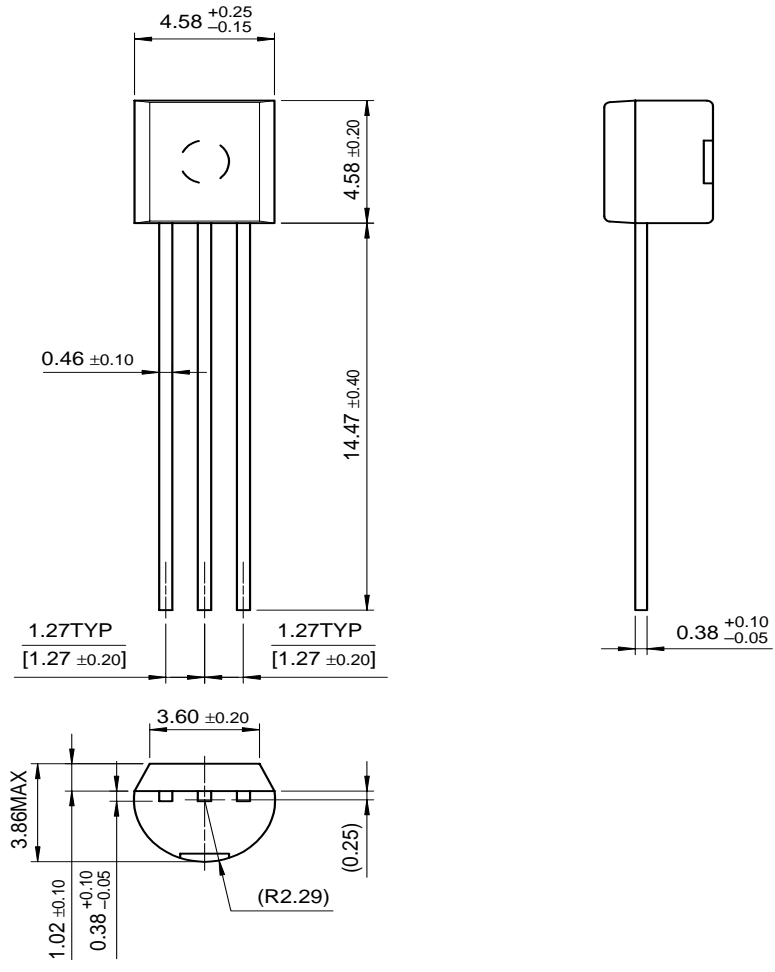


Figure 6. Safe Operating Area

Package Dimensions

KSD471A

TO-92



Dimensions in Millimeters

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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.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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Product	Product status	Pricing*	Package type	Leads	Packing method
KSD471ACGBU	Full Production	\$0.058	TO-92	3	BULK
KSD471AYBU	Full Production	\$0.058	TO-92	3	BULK
KSD471ACOTA	Full Production	\$0.058	TO-92	3	TAPE REEL
KSD471AOTA	Full Production	\$0.058	TO-92	3	TAPE REEL
KSD471ACYTA	Full Production	\$0.058	TO-92	3	TAPE REEL
KSD471AGBU	Full Production	\$0.058	TO-92	3	BULK
KSD471AYTA	Full Production	\$0.058	TO-92	3	TAPE REEL
KSD471ACYBU	Full Production	\$0.058	TO-92	3	BULK
KSD471AGTA	Full Production	\$0.058	TO-92	3	TAPE REEL
KSD471AOBU	Full Production	\$0.058	TO-92	3	BULK
KSD471ACGTA	Full Production	\$0.058	TO-92	3	TAPE REEL

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