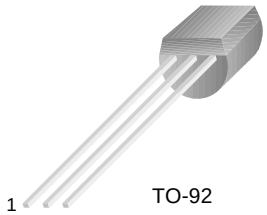
FAIRCHILD
SEMICONDUCTOR®

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)



TO-92

1. Emitter 2. Base 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°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	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=100μA, 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=100μA, 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	120		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	Y	G
h_{FE}	120 ~ 240	200 ~ 400

Typical Characteristics

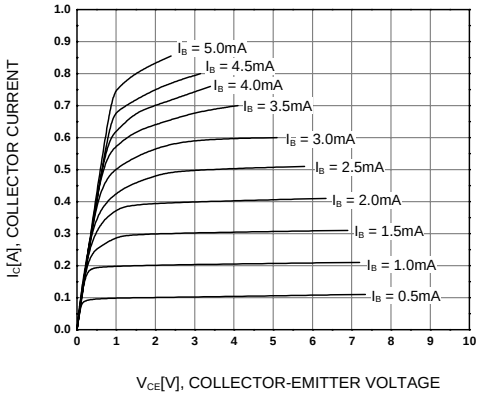


Figure 1. Static Characteristic

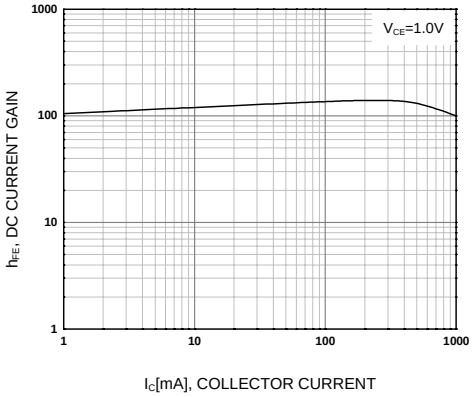


Figure 2. DC current Gain

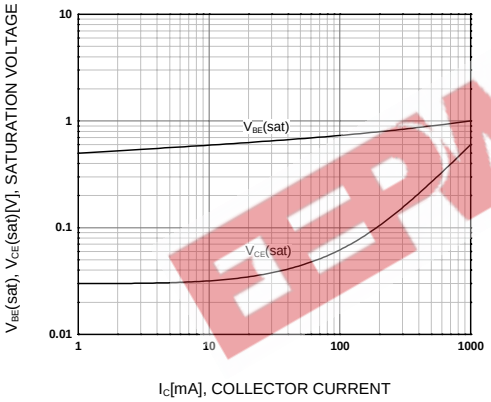


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

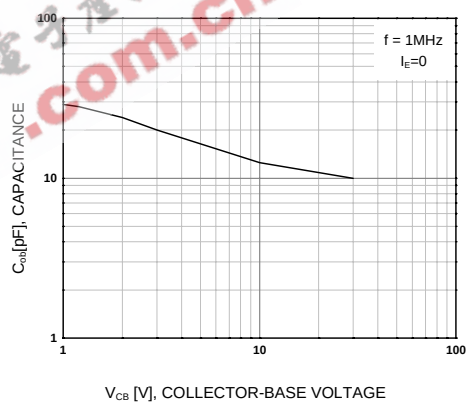


Figure 4. Collector Output Capacitance

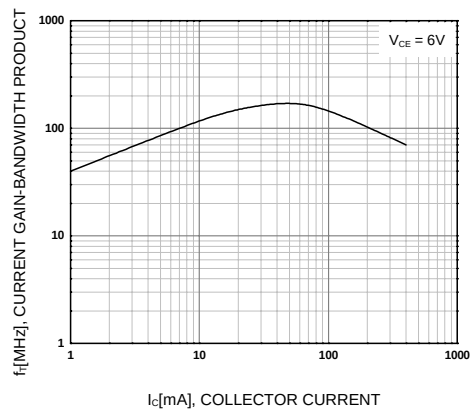


Figure 5. Current Gain Bandwidth Product

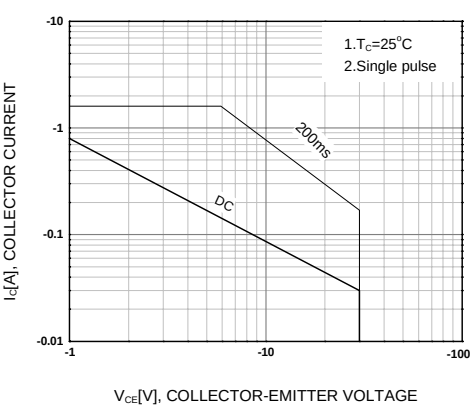
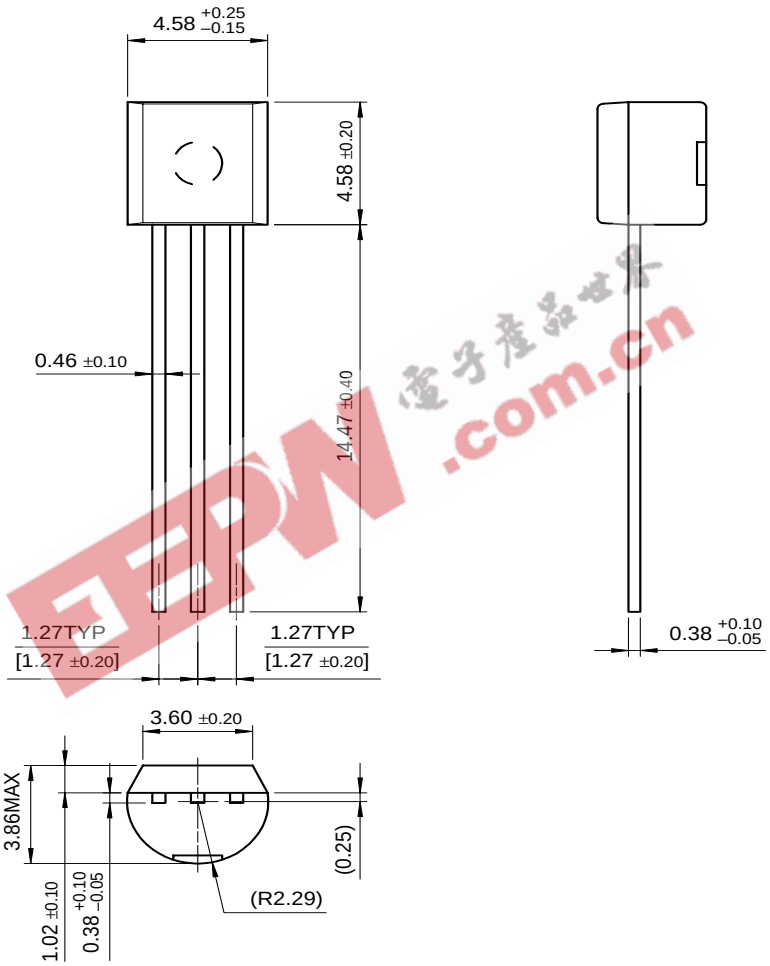


Figure 6. Safe Operating Area

Package Dimensions

TO-92



Dimensions in Millimeters

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CoolFET™	FPS™	MICROCOUPLER™	PowerSaver™	SuperSOT™-3
CROSSVOLT™	FRFET™	MicroFET™	PowerTrench®	SuperSOT™-6
DOME™	GlobalOptoisolator™	MicroPak™	QFET®	SuperSOT™-8
EcoSPARK™	GTO™	MICROWIRE™	QS™	SyncFET™
E²CMOS™	HiSeC™	MSX™	QT Optoelectronics™	TinyLogic®
EnSigna™	I²C™	MSXPro™	Quiet Series™	TINYOPTO™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	VCX™

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