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# ON Semiconductor®

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### KSB564A

### **Audio Frequency Power Amplifier**

- Complement to KSD471A
- Collector Current : I<sub>C</sub> = -1A
- Collector Power Dissipation : P<sub>C</sub> = 800mW
- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)



## **PNP Epitaxial Silicon Transistor**

### **Absolute Maximum Ratings** $T_a$ =25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V <sub>CBO</sub>	Collector-Base Voltage	-30	V
$V_{CEO}$	Collector-Emitter Voltage	-25	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current	-1.0	А
P <sub>C</sub>	Collector Power Dissipation	800	mW
TJ	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

## $\textbf{Electrical Characteristics} \ \, \textbf{T}_{a} \!\!=\!\! 25^{\circ} \textbf{C} \ \, \text{unless otherwise noted}$

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	$I_C = -100 \mu A, I_E = 0$	-30			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -10mA, I <sub>B</sub> =0	-25			V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	$I_E = -100 \mu A, I_C = 0$	-5			V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = -30V, I <sub>E</sub> =0			-0.1	μΑ
h <sub>FE</sub>	DC Current Gain	V <sub>CE</sub> = -1V, I <sub>C</sub> = -100mA	70		400	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -1A, I <sub>B</sub> = -0.1A			-0.5	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	I <sub>C</sub> = -1A, I <sub>B</sub> = -0.1A			-1.2	V
f <sub>T</sub>	Current Gain Bandwidth Product	$V_{CE}$ = -6V, $I_{C}$ = -10mA		110		MHz
C <sub>ob</sub>	Output Capacitance	$V_{CB}$ = -6V, $I_{E}$ =0, f=1MHz		18		pF

### **h**<sub>FE</sub> Classification

Classification	0	Υ	G
h <sub>FE</sub>	70 ~ 140	120 ~ 240	200 ~ 400

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# **Typical Characteristics**

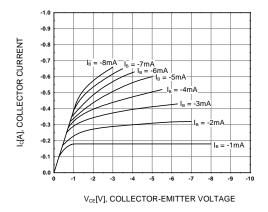
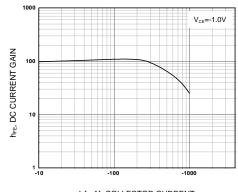


Figure 1. Static Characteristic



I<sub>C</sub>[mA], COLLECTOR CURRENT

Figure 2. DC current Gain

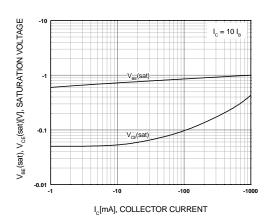


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

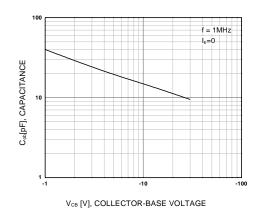


Figure 4. Collector Output Capacitance

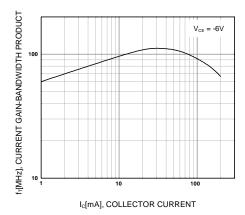


Figure 5. Current Gain Bandwidth Product

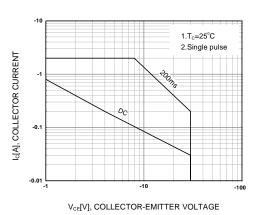
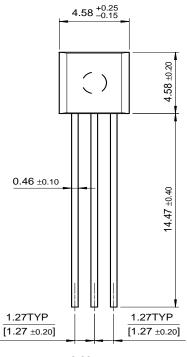


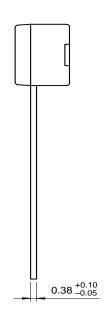
Figure 6. Safe Operating Area

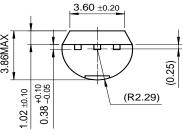
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# **Package Demensions**

TO-92







Dimensions in Millimeters

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