

KSA916

Audio Power Amplifier

- Driver Stage Amplifier
- Complement to KSC2316



PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Ratings	Units
V_{CB0}	Collector-Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-800	mA
P_C	Collector Power Dissipation	900	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CB0}	Collector-Base Breakdown Voltage	$I_C = -1\text{mA}$, $I_E = 0$	-120			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}$, $I_B = 0$	-120			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -1\text{mA}$, $I_C = 0$	-5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -120\text{V}$, $I_E = 0$			-0.1	μA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$ $V_{CE} = -5\text{V}$, $I_C = -100\text{mA}$	60 80		240	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$			-1	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -5\text{V}$, $I_C = -100\text{mA}$		120		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$			40	pF

h_{FE} Classification

Classification	O	Y
h_{FE}	80 ~ 160	120 ~ 240

Typical Characteristics

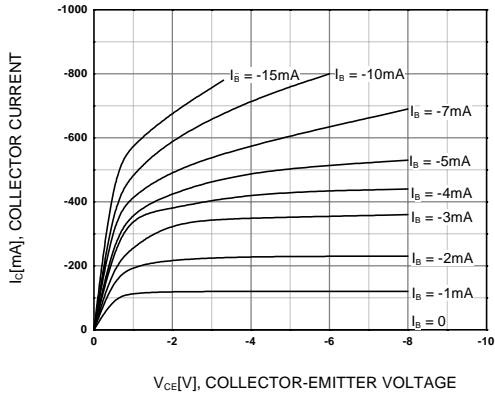


Figure 1. Static Characteristic

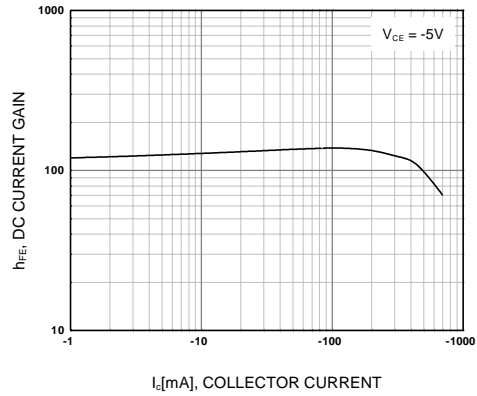


Figure 2. DC current Gain

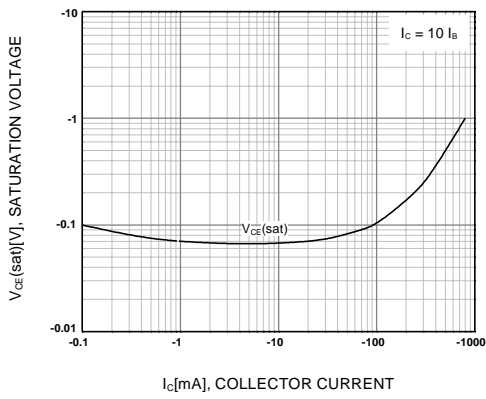


Figure 3. Collector-Emitter Saturation Voltage

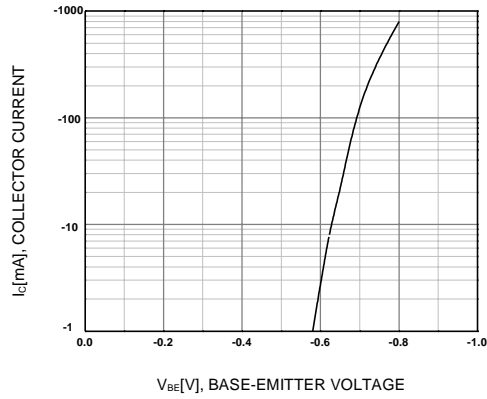


Figure 4. Base-Emitter On Voltage

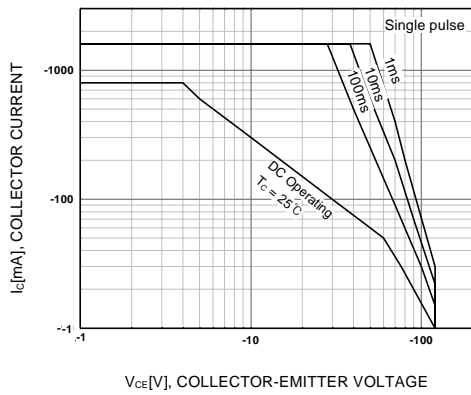


Figure 5. Safe Operating Area

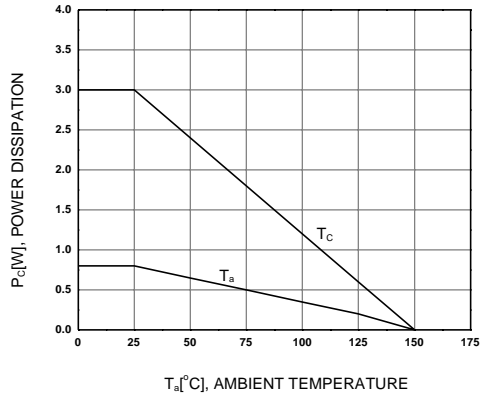


Figure 6. Power Derating

Package Dimensions

TO-92L



Dimensions in Millimeters

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