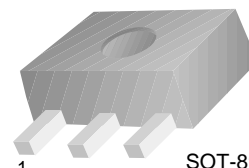


KSB798

Audio Frequency Power Amplifier

- Collector Current : $I_C = -1A$
- Collector Power Dissipation : $P_C = 2W$



SOT-89
1. Base 2. Collector 3. Emitter

PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current (DC)	-1.0	A
I_{CP}	* Collector Current (Pulse)	-1.5	A
P_C	Collector Power Dissipation	2.0	W
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

* $PW \leq 10ms$, Duty cycle $\leq 50\%$

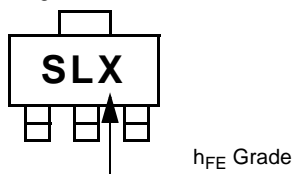
Electrical Characteristics $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -100\mu A, I_E = 0$	-30			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -1mA, I_B = 0$	-25			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
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -5V, I_C = 0$			-0.1	μA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = -1V, I_C = -0.1A$ $V_{CE} = -1V, I_C = -1.0A$	90 50		400	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1.0A, I_B = -0.1A$			-0.4	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -1.0A, I_B = -0.1A$			-1.2	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -6V, I_C = -10mA$	-0.6		-0.7	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -6V, I_C = -10mA$		110		MHz
C_{ob}	Output Capacitance	$V_{CB} = -6V, I_E = 0, f = 1MHz$		18		pF

h_{FE} Classification

Classification	O	Y	G
h_{FE1}	90 ~ 180	135 ~ 270	200 ~ 400

Marking



Typical Characteristics

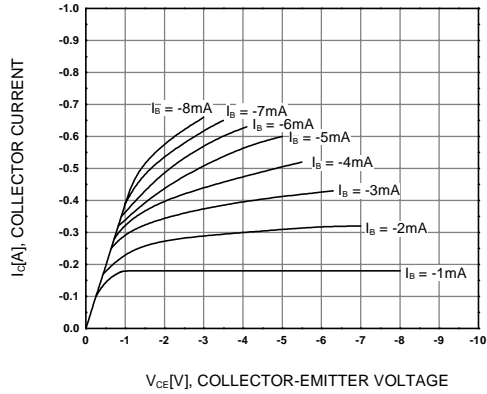


Figure 1. Static Characteristic

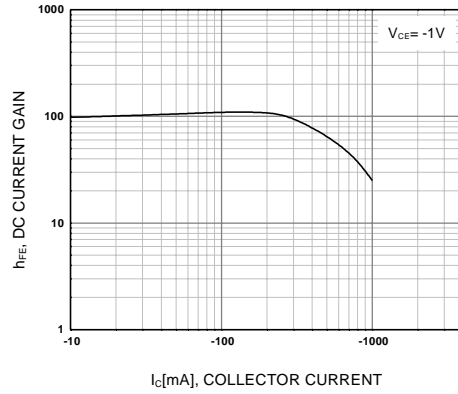


Figure 2. DC current Gain

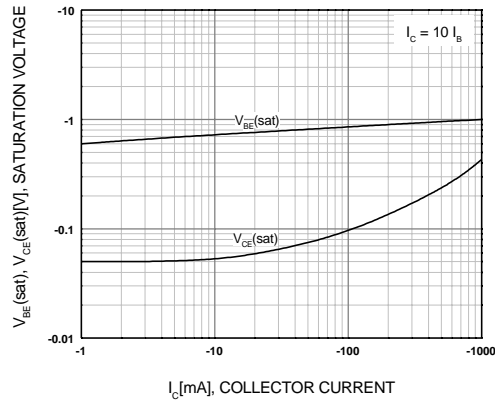


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

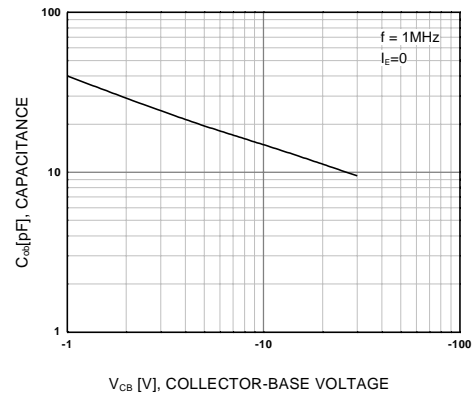


Figure 4. Collector Output Capacitance

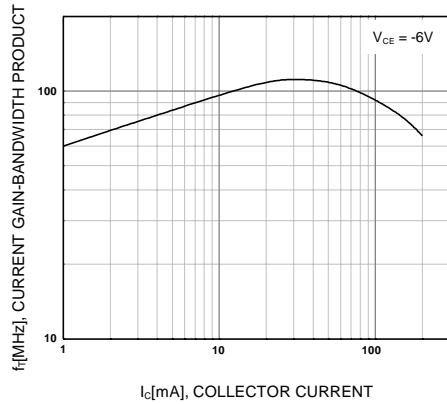


Figure 5. Current Gain Bandwidth Product

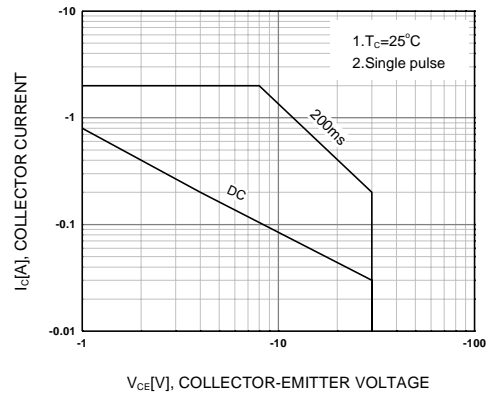
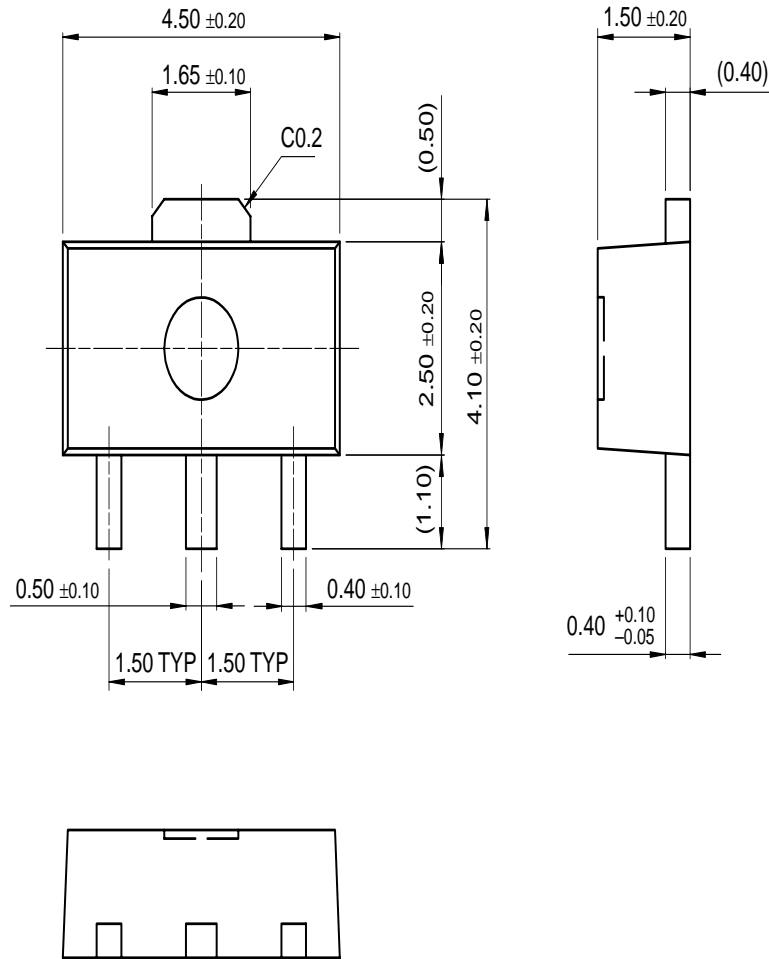


Figure 6. Safe Operating Area

Package Dimensions

SOT-89



Dimensions in Millimeters

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E ² CMOS™	LittleFET™	QT Optoelectronics™	TinyLogic™
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