



**THE DATASHEET OF
KSB798YTF**

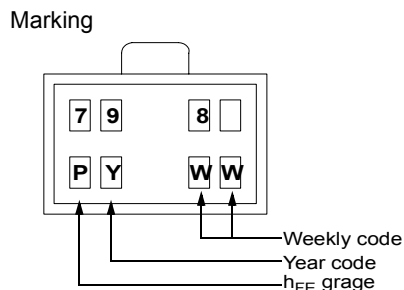
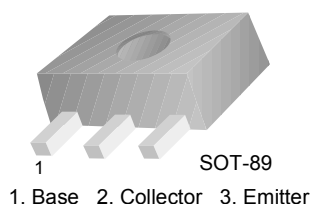


KSB798

PNP Epitaxial Silicon Transistor

Audio Frequency Power Amplifier

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



Absolute Maximum Ratings $T_a = 25^\circ\text{C}$ 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	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

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

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

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

h_{FE} Classification

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

Package Marking and Ordering Information

Device Marking	Device	Package	Reel Size	Tape Width	Quantity
798	KSB798	SOT-89	13"	--	4,000

Typical Performance Characteristics

Figure 1. Static Characteristic

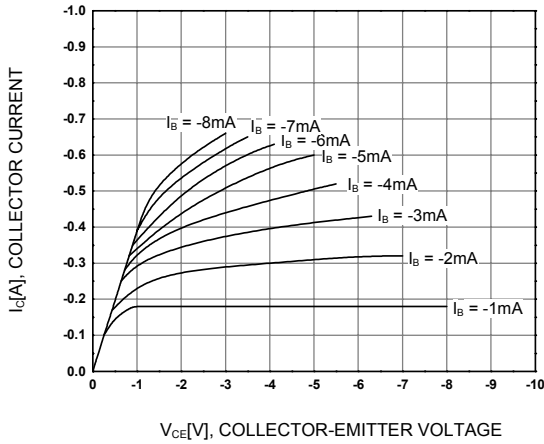
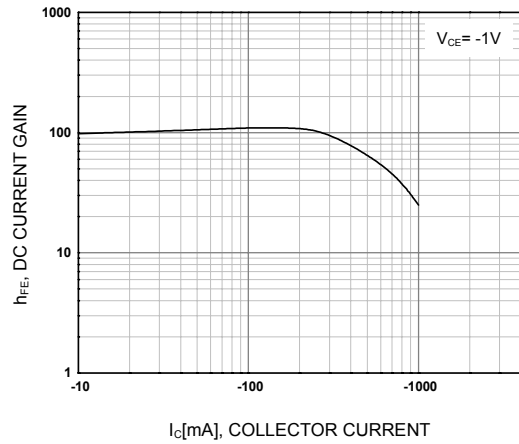


Figure 2. DC Current Gain



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

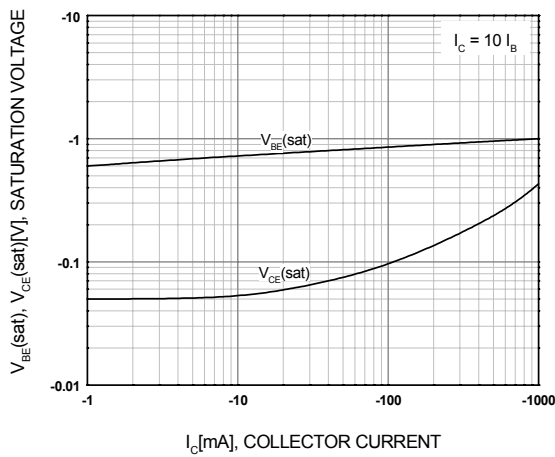


Figure 4. Collector Output Capacitance

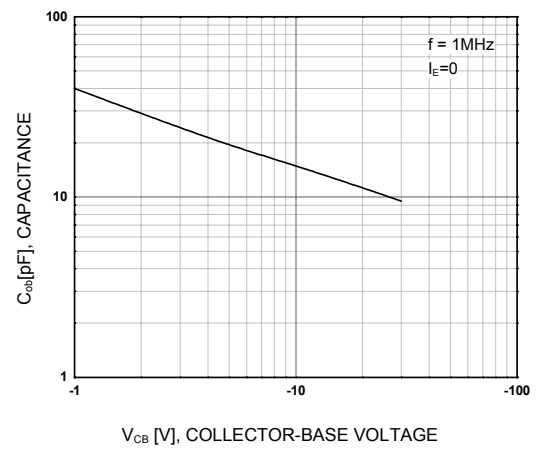


Figure 5. Current Gain Bandwidth Product

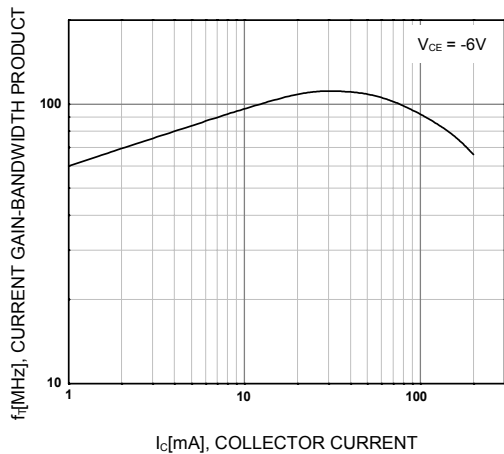
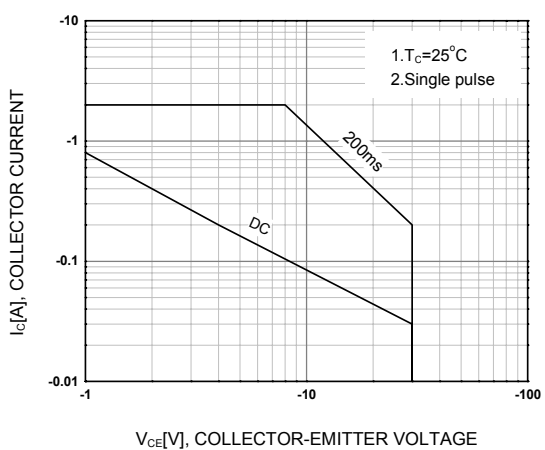
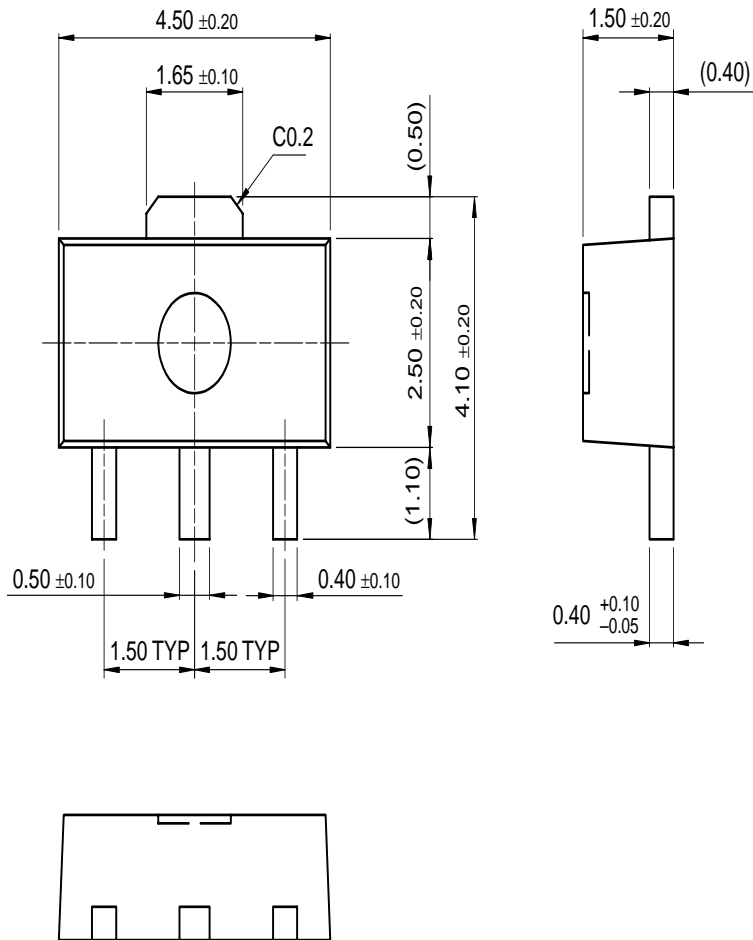


Figure 6. Safe Operating Area



Mechanical Dimensions

SOT-89



Dimensions in Millimeters

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