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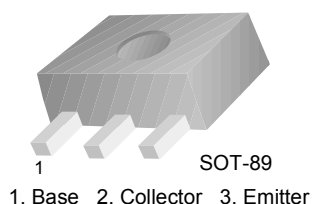
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# KSB798

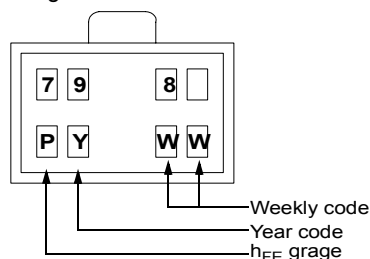
## PNP Epitaxial Silicon Transistor

### Audio Frequency Power Amplifier

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



Marking



### 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	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = -5\text{V}$ , $I_C = 0$			-0.1	$\mu\text{A}$
$h_{FE1}$ $h_{FE2}$	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**

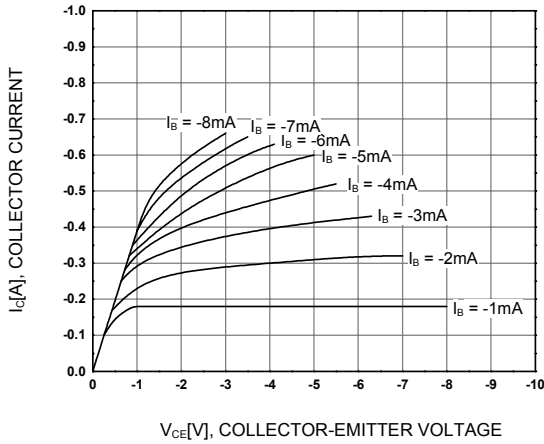
Classification	O	Y	G
$h_{FE1}$	90 ~ 180	135 ~ 270	200 ~ 400

**Package Marking and Ordering Information**

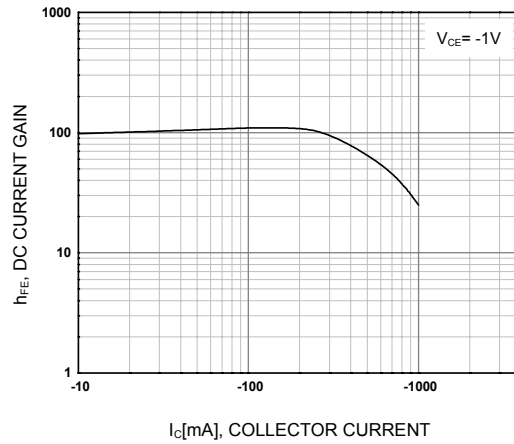
Device Marking	Device	Package	Reel Size	Tape Width	Quantity
798	KSB798	SOT-89	13"	--	4,000

## Typical Performance Characteristics

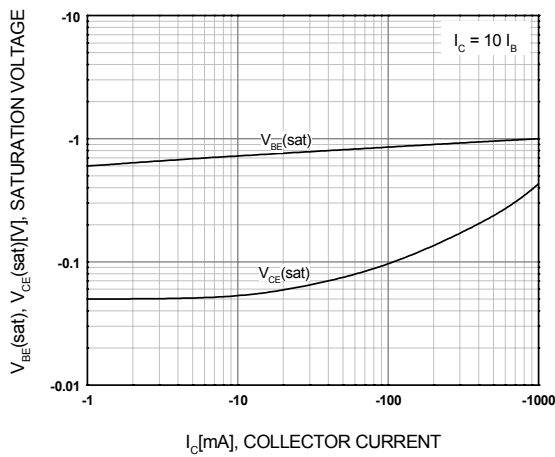
**Figure 1. Static Characteristic**



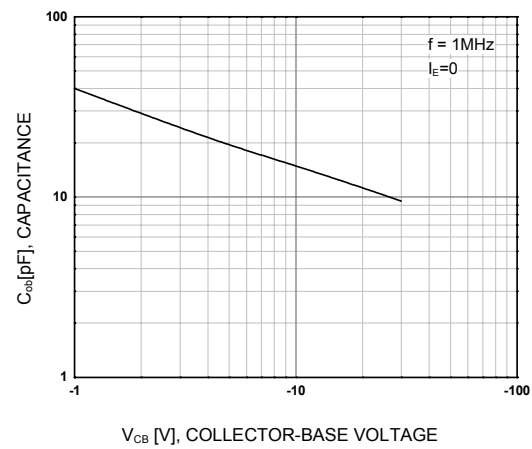
**Figure 2. DC Current Gain**



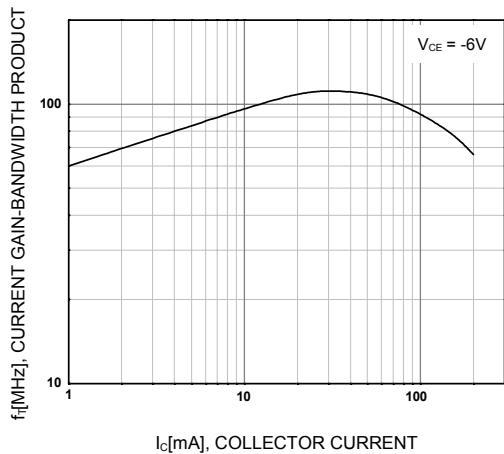
**Figure 3. Base-Emitter Saturation Voltage  
Collector-Emmitter Saturation Voltage**



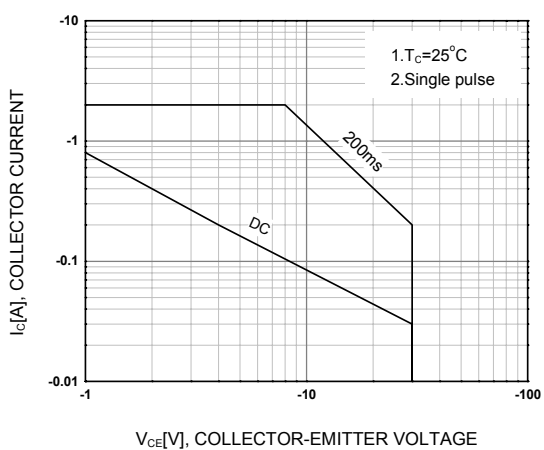
**Figure 4. Collector Output Capacitance**



**Figure 5. Current Gain Bandwidth Product**

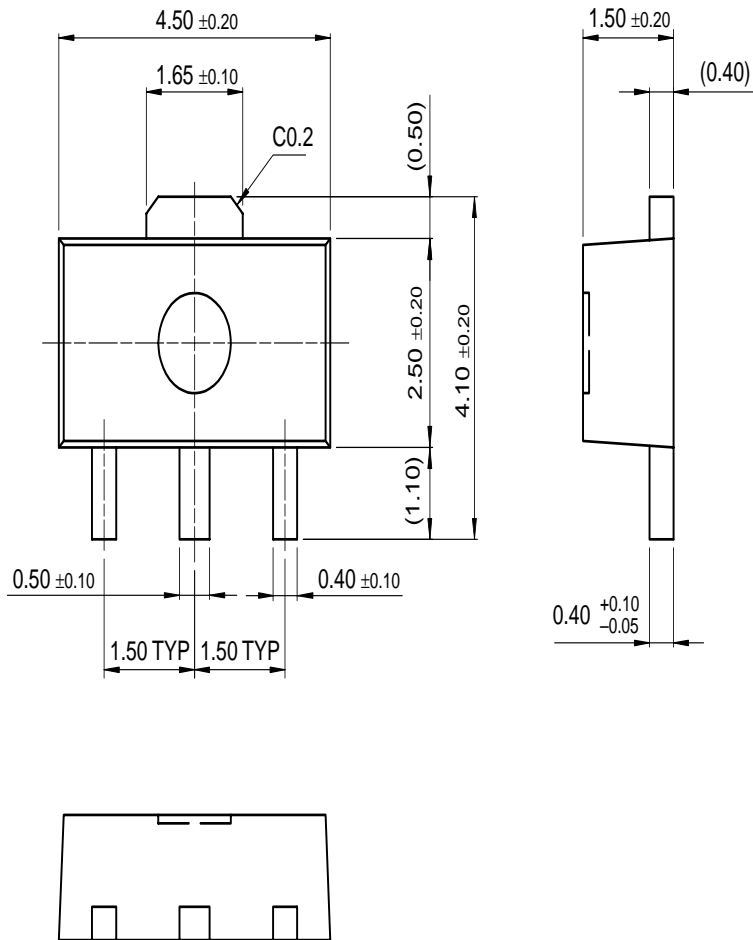


**Figure 6. Safe Operating Area**



Mechanical Dimensions

SOT-89



Dimensions in Millimeters

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Rev. 116

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