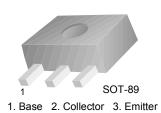


KSB798 PNP Epitaxial Silicon Transistor

Audio Frequency Power Amplifier

• Collector Current : I_C = -1A

• Collector Power Dissipation : P_C = 2W



Marking 7 9 8 P Y W W Weekly code Year code h_{FE} grage

Absolute Maximum Ratings T_a = 25°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	А
I _{CP}	Collector Current (Pulse) *	-1.5	A
P _C	Collector Power Dissipation	2.0	W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-55 ~ 150	°C

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

Electrical Characteristics Ta = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	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	μΑ
I _{EBO}	Emitter Cut-off Current	$V_{EB} = -5V, I_{C} = 0$			-0.1	μΑ
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	0	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

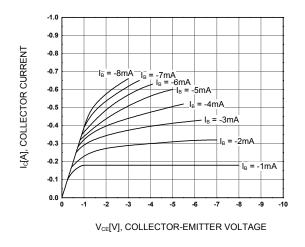
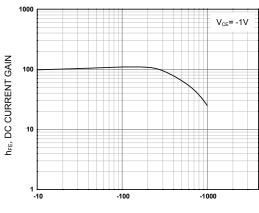


Figure 2. DC Current Gain



I_C[mA], COLLECTOR CURRENT

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

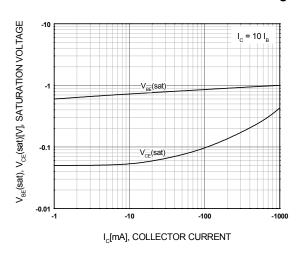
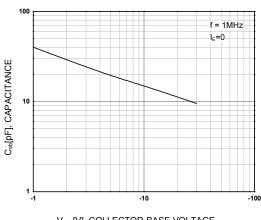


Figure 4. Collector Output Capacitance



 V_{CB} [V], COLLECTOR-BASE VOLTAGE

Figure 5. Current Gain Bandwidth Product

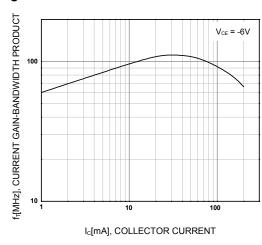
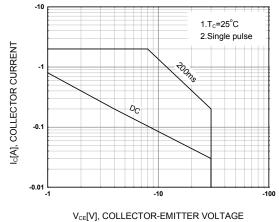


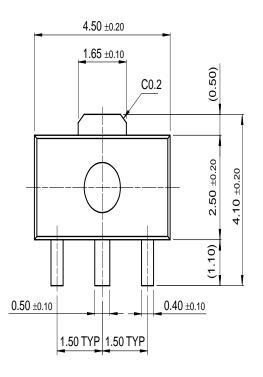
Figure 6. Safe Operating Area

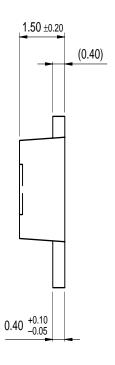


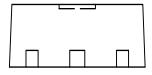
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Mechanical Dimensions

SOT-89







Dimensions in Millimeters

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SuperSOT™-3

SuperSOT™-6

PRODUCT STATUS DEFINITIONS

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Datasheet Identification	Product Status	Definition			
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Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method	Package Marking Convention**
KSB798GTF	Full Production	Full Production	\$0.128	<u>SOT-89</u>	3	TAPE REEL	<u>Line 1:</u> 798 <u>Line 2:</u> G&3
KSB798YTF	Full Production	Full Production	\$0.128	<u>SOT-89</u>	3	TAPE REEL	<u>Line 1:</u> 798 <u>Line 2:</u> Y&3

^{*} Fairchild 1,000 piece Budgetary Pricing

^{**} A sample button will appear if the part is available through Fairchild's on-line samples program. If there is no sample button, please

contact a Fairchild distributor to obtain samples



Indicates product with Pb-free second-level interconnect. For more information click here.

Package marking information for product KSB798 is available. Click here for more information.

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Qualification Support

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