



FUKUCOM COMPANY LTD.

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FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.
TEL: 2790-0314 FAX: 2790-0206

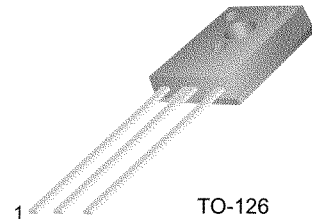
KSB772

FAIRCHILD
SEMICONDUCTOR®

KSB772

Audio Frequency Power Amplifier

- Low Speed Switching
- Complement to KSD882



TO-126
1. Emitter 2. Collector 3. Base

PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CB0}	Collector-Base Voltage	- 40	V
V_{CEO}	Collector-Emitter Voltage	- 30	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_C	Collector Current (DC)	- 3	A
I_{CP}	*Collector Current (Pulse)	- 7	A
I_B	Base Current (DC)	- 0.6	A
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	10	W
	Collector Dissipation ($T_a=25^\circ\text{C}$)	1	W
$R_{\theta ja}$	Junction to Ambient	132	$^\circ\text{C}/\text{W}$
$R_{\theta jc}$	Junction to Case	13.5	$^\circ\text{C}/\text{W}$
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

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

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CB0}	Collector Cut-off Current	$V_{CB} = -30\text{V}$, $I_E = 0$			- 1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -3\text{V}$, $I_C = 0$			- 1	μA
h_{FE1} h_{FE2}	* DC Current Gain	$V_{CE} = -2\text{V}$, $I_C = -20\text{mA}$ $V_{CE} = -2\text{V}$, $I_C = -1\text{A}$	30 60	220 160	400	
$V_{CE(sat)}$	* Collector-Emitter Saturation Voltage	$I_C = -2\text{A}$, $I_B = -0.2\text{A}$		- 0.3	- 0.5	V
$V_{BE(sat)}$	* Base-Emitter Saturation Voltage	$I_C = -2\text{A}$, $I_B = -0.2\text{A}$		- 1.0	- 2.0	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -5\text{V}$, $I_E = -0.1\text{A}$		80		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}$, $I_E = 0$ $f = 1\text{MHz}$		55		pF

* Pulse Test: $PW \leq 350\mu\text{s}$, Duty Cycle $\leq 2\%$

h_{FE} Classification

Classification	R	O	Y	G
h_{FE2}	60 ~ 120	100 ~ 200	160 ~ 320	200 ~ 400



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Typical Characteristics

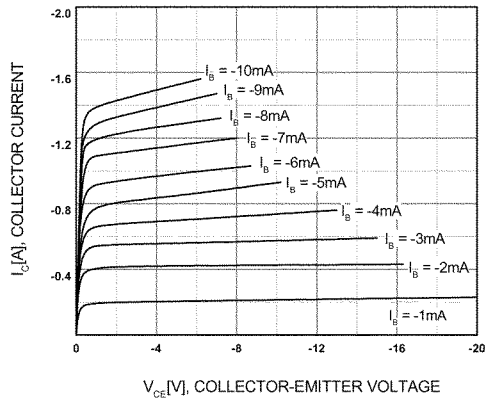


Figure 1. Static Characteristic

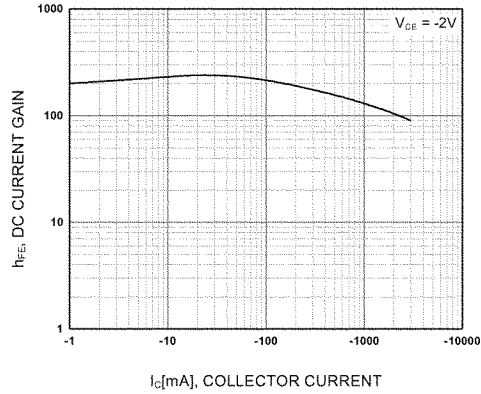


Figure 2. DC current Gain

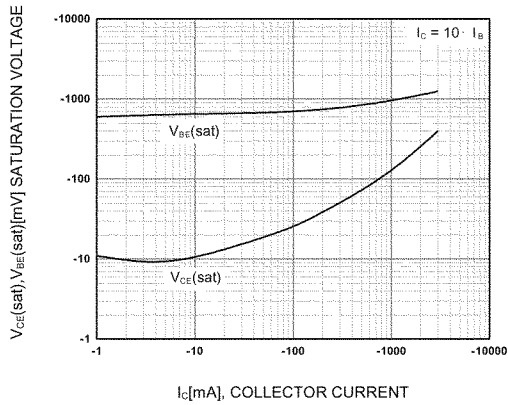


Figure 3. Base-Emitter Saturation Voltage
 Collector-Emitter Saturation Voltage

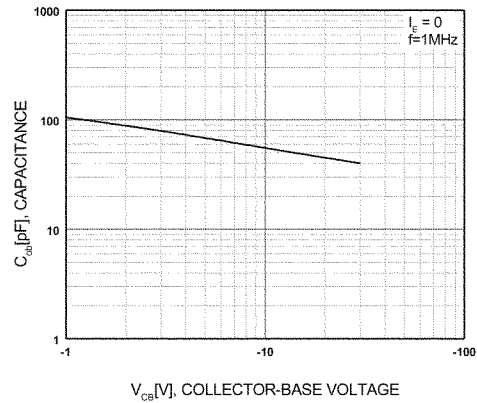


Figure 4. Collector Output Capacitance

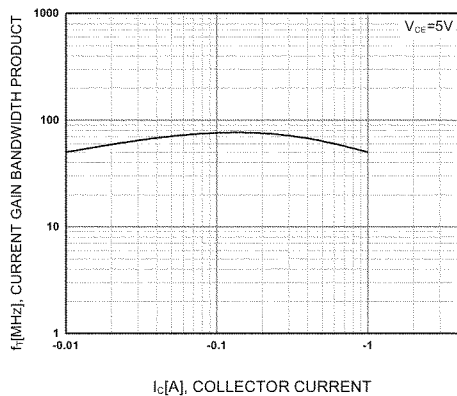


Figure 5. Current Gain Bandwidth Product

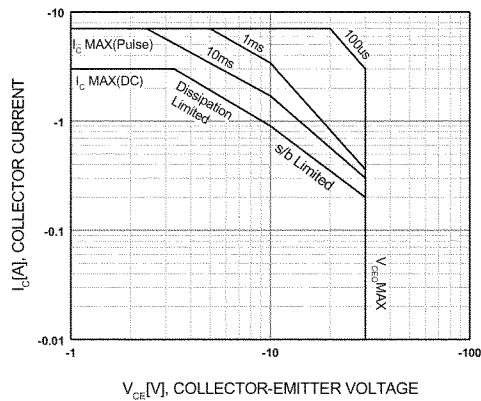


Figure 6. Safe Operating Area



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Typical Characteristics (Continued)

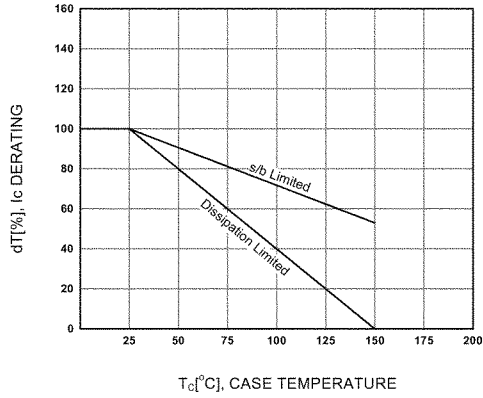


Figure 7. Derating Curve of Safe Operating Areas

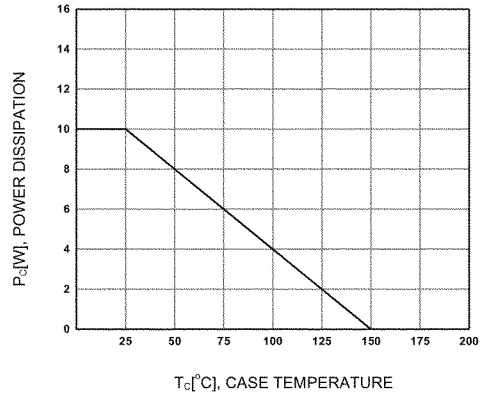


Figure 8. Power Derating



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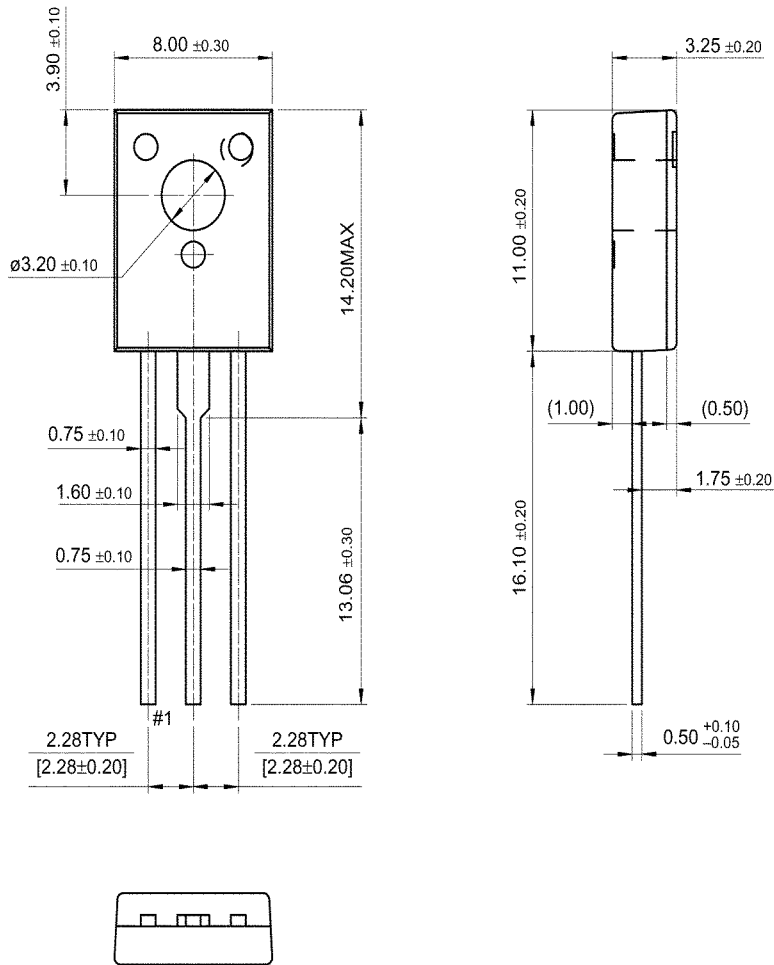
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Package Dimensions

TO-126



Dimensions in Millimeters