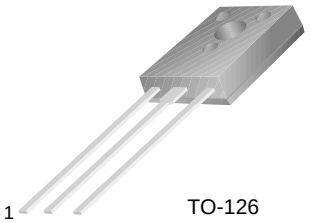
FAIRCHILD
SEMICONDUCTOR®

KSB794/795

Audio Frequency Power Amplifier

- Low Speed Switching Industrial Use



TO-126

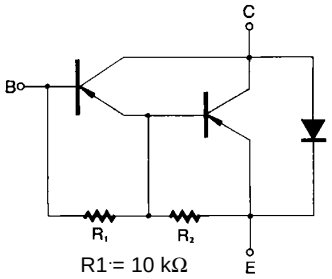
1. Emitter 2.Collector 3.Base

PNP Epitaxial Silicon Darlington Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Volage		
	: KSB794	- 60	V
	: KSB795	- 80	V
V_{CEO}	Collector-Emitter Volage		
	: KSB794	- 60	V
	: KSB795	- 80	V
V_{EBO}	Emitter-Base Voltage	- 8	V
I_C	Collector Current (DC)	- 1.5	A
I_{CP}	*Collector Current (Pulse)	- 3	A
I_B	Base Current (DC)	- 0.15	A
P_C	Collector Dissipation (T_a=25°C)	1	W
P_C	Collector Dissipation (T_C=25°C)	10	W
TJ	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

* PW≤300μs, Duty Cycle≤10%



R1= 10 kΩ
R2= 500Ω

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
I_{CBO}	Collector Cut-off Current	V_{CB} = - 60V, I_E = 0		- 10	μA
I_{CER}	Collector Cut-off Current	V_{CE} = - 60V, R_{BE} = 51Ω @ T_C= 125°C		- 1	mA
I_{CEX1}	Collector Cut-off Current	V_{CE} = - 60V, V_{BE} (off) = 1.5V		- 10	μA
I_{CEX2}	Collector Cut-off Current	V_{CE} = - 60V, V_{BE} (off) = 1.5V @ T_C= 125°C		-1	mA
I_{EBO}	Emitter Cut-off Current	V_{EB} = - 5V, I_C = 0		- 1	mA
h_{FE1}	* DC Current Gain	V_{CE} = - 2V, I_C = - 0.5A	1000		
h_{FE2}		V_{CE} = - 2V, I_C = - 1A	2000	30000	
V_{CE}(sat)	* Collector-Emitter Saturation Voltage	I_C = - 1A, I_B = - 1mA		-1.5	V
V_{BE}(sat)	* Base-Emitter Saturation Voltage	I_C = - 1A, I_B = - 1mA		- 2	V

* Pulse Test: PW≤350μs, Duty Cycle≤2% Pulsed.

h_{FE} Classificntion

Classification	R	O	Y
h_{FE2}	2000 ~ 5000	4000 ~ 10000	8000 ~ 30000

Typical Characteristics

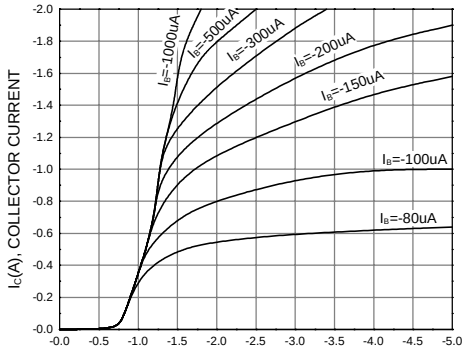


Figure 1. Static Characteristic

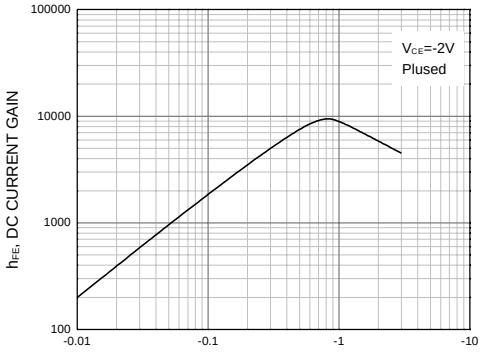


Figure 2. DC current Gain

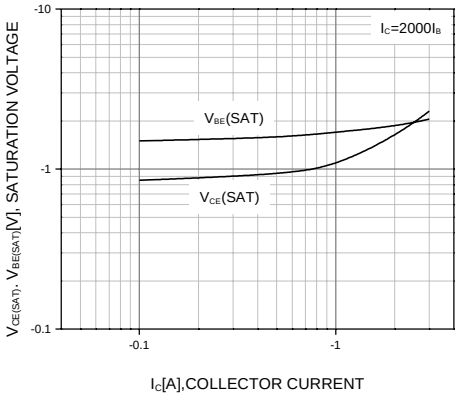


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

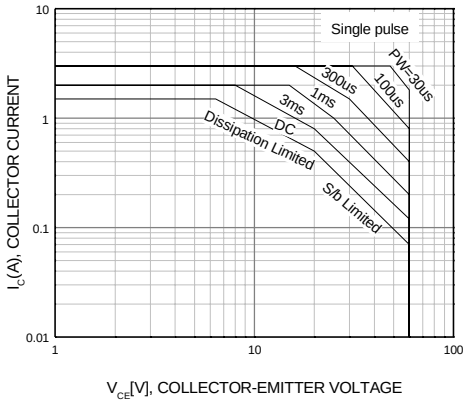


Figure 4. Safe Operating Area

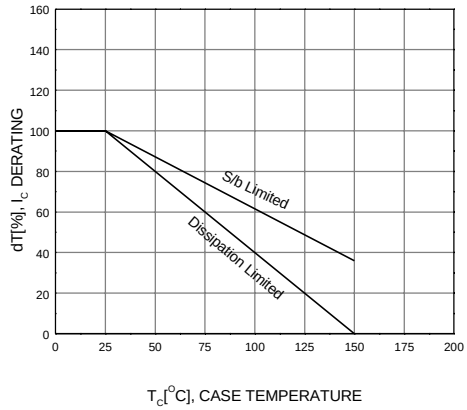


Figure 5. Derating Curve of Safe Operating Area

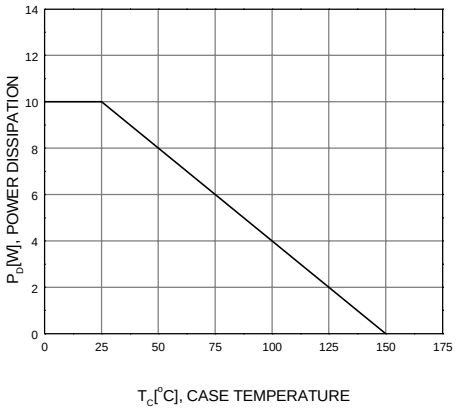
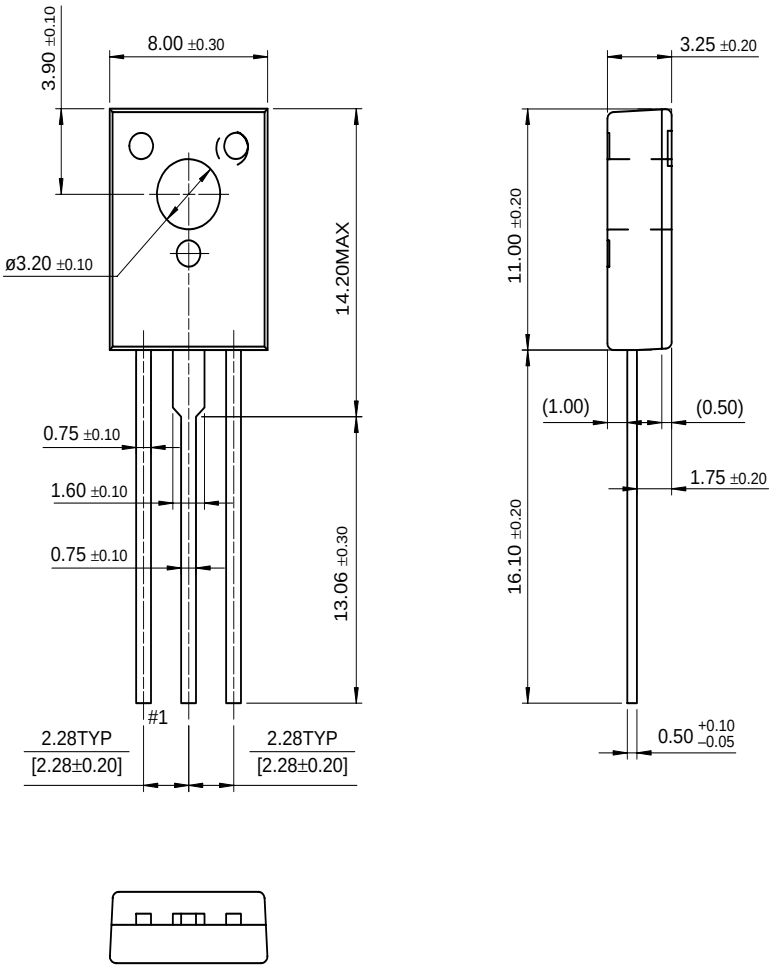


Figure 6. Power Derating

Package Demensions

TO-126



Dimensions in Millimeters

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