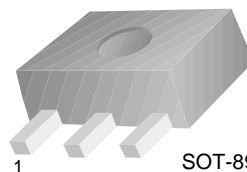


FJC1963

Audio Power Amplifier Applications

- Complement to FJC1308
- High Collector Current
- Low Collector-Emitter Saturation Voltage



1. Base 2. Collector 3. Emitter

NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current (DC)	3	A
P_C	Power Dissipation ($T_C=25^\circ\text{C}$)	0.5	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

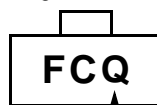
Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=50\mu\text{A}, I_E=0$	50			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}, I_B=0$	30			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=50\mu\text{A}, I_C=0$	6			V
I_{CEO}	Collector Cut-off Current	$V_{CE}=40\text{V}, V_B=0$			0.5	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=5\text{V}, I_C=0$			0.5	μA
h_{FE}	DC Current Gain	$V_{CE}=2\text{V}, I_C=0.5\text{A}$	120		560	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1.5, I_B=0.15\text{A}$			0.45	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=1.5, I_B=0.15\text{A}$			1.2	V

h_{FE} Classification

Classification	Q	R	S
h_{FE}	120 ~ 270	180 ~ 390	280 ~ 560

Marking



h_{FE} grade

Typical Characteristics

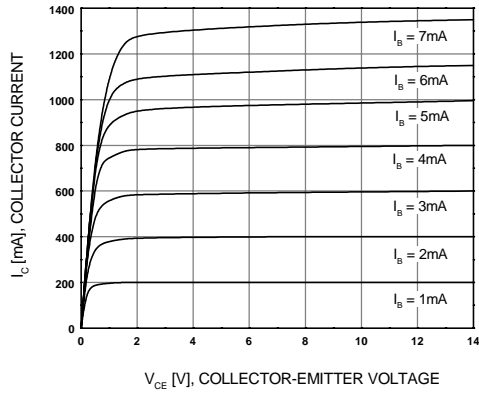


Figure 1. Static Characteristic

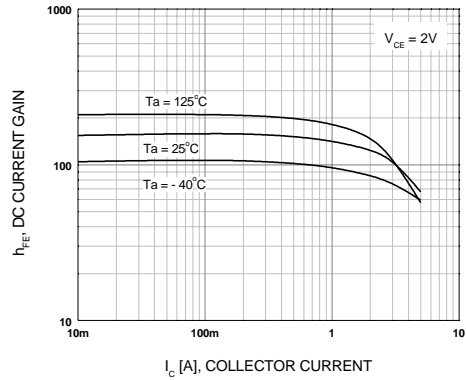


Figure 2. DC current Gain

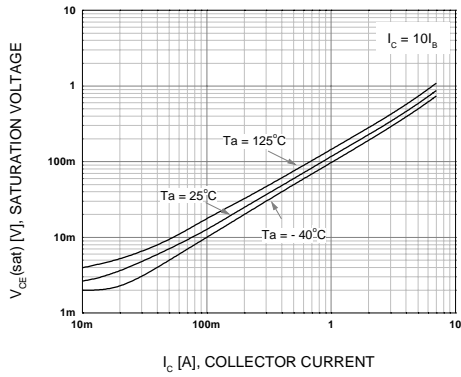


Figure 3. Collector-Emitter Saturation Voltage

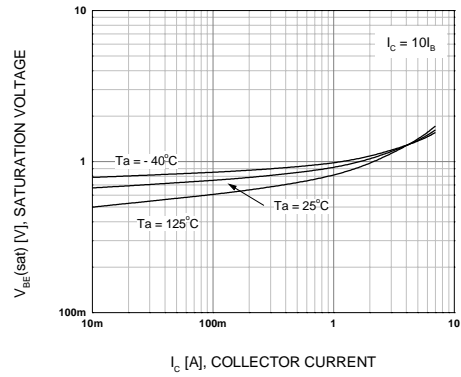


Figure 4. Base-Emitter Saturation Voltage

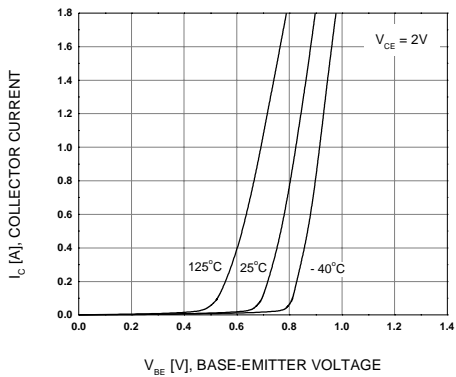


Figure 5. Base-Emitter On Voltage

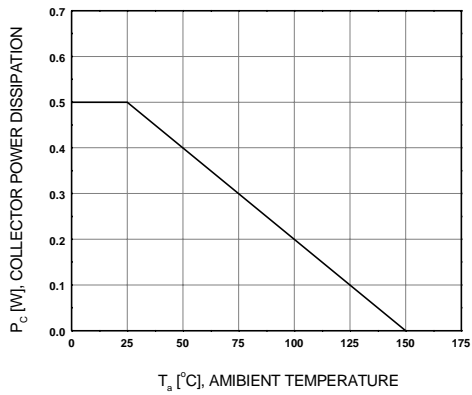
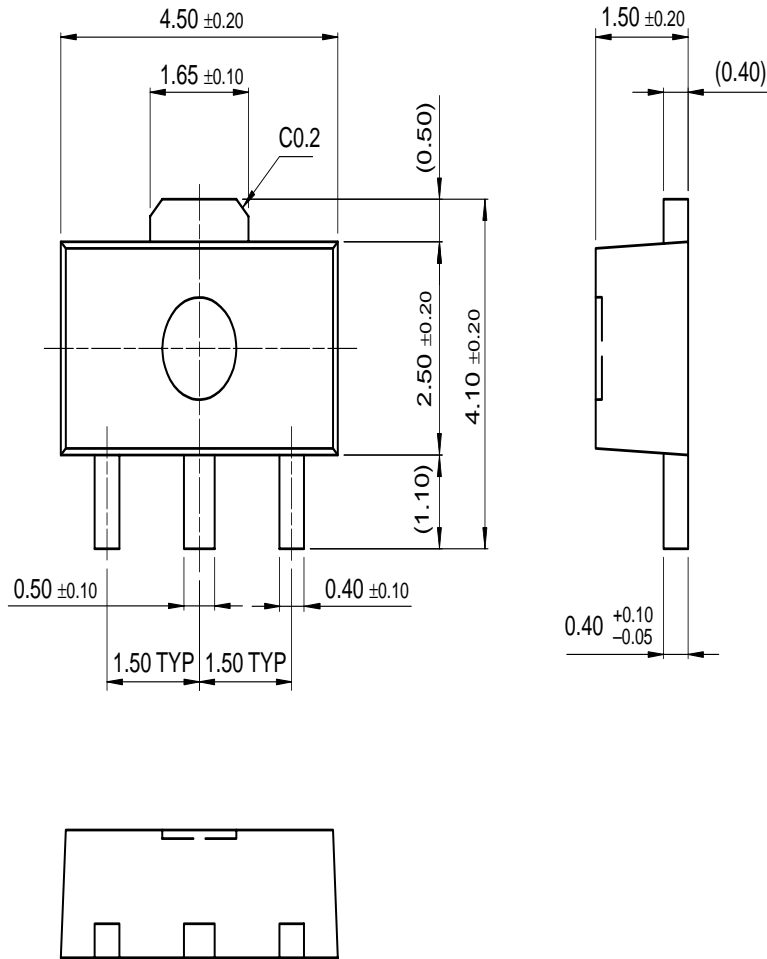


Figure 6. Power Derating

Package Dimensions

SOT-89



Dimensions in Millimeters

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