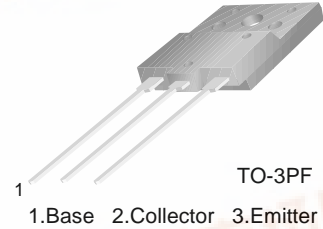


FAIRCHILD
SEMICONDUCTOR®

FJAF4210

Audio Power Amplifier

- High Current Capability : $I_C = -10A$
- High Power Dissipation
- Wide S.O.A
- Complement to FJAF4310



PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-200	V
V_{CEO}	Collector-Emitter Voltage	-140	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current (DC)	-10	A
I_B	Base Current (DC)	-1.5	A
P_C	Collector Dissipation ($T_C = 25^\circ C$)	80	W
$R_{\theta JC}$	Junction to Case	1.33	$^\circ C/W$
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -5mA, I_E = 0$	-200			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -50mA, R_{BE} = \infty$	-140			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -5mA, I_C = 0$	-6			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -200V, I_E = 0$			-10	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -6V, I_C = 0$			-10	μA
h_{FE}	* DC Current Gain	$V_{CE} = -4V, I_C = -3A$	50		180	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -5A, I_B = -0.5A$			-0.5	V
C_{ob}	Output Capacitance	$V_{CB} = -10V, f = 1MHz$		400		pF
f_T	Current Gain Bandwidth Product	$V_{CE} = -5V, I_C = -1A$		30		MHz

* Pulse Test : $PW = 20\mu s$

h_{FE} Classification

Classification	R	O	Y
h_{FE}	50 ~ 100	70 ~ 140	90 ~ 180

Typical Characteristics

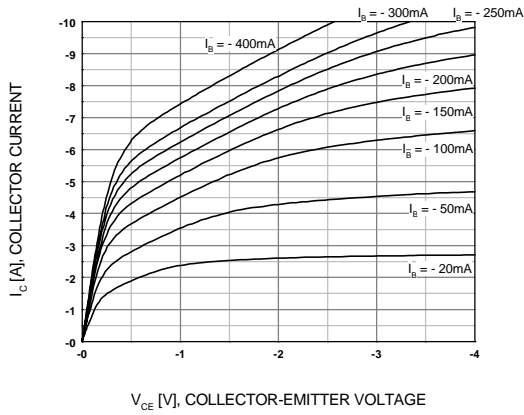


Figure 1. Static Characteristic

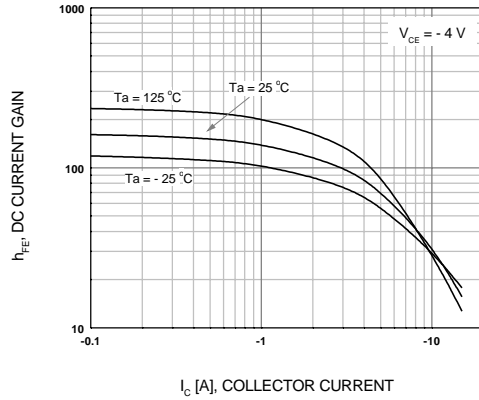


Figure 2. DC current Gain

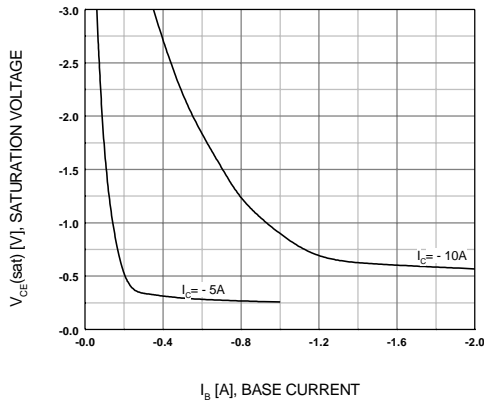


Figure 3. $V_{CE(sat)}$ vs. I_B Characteristics

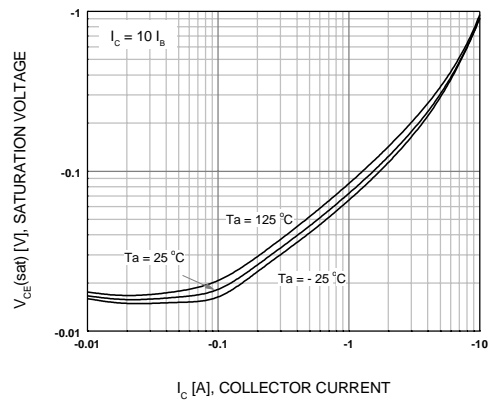


Figure 4. Collector-Emitter Saturation Voltage

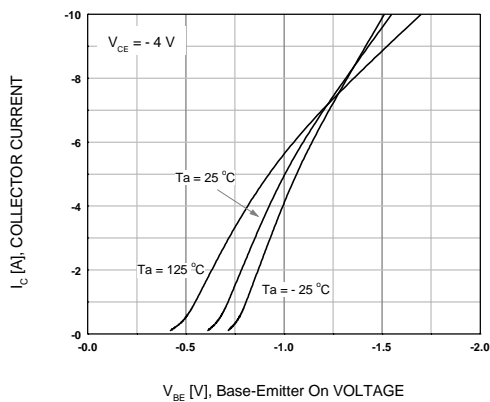


Figure 5. Base-Emitter On Voltage

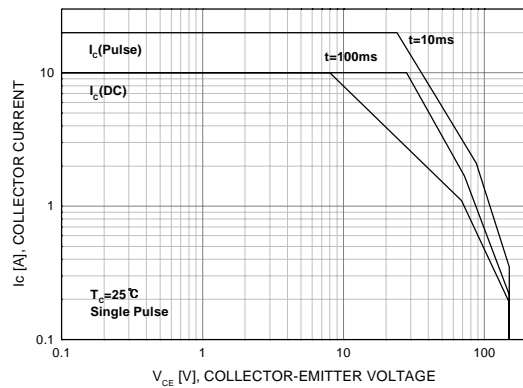


Figure 6. Forward Bias Safe Operating Area

Typical Characteristics (Continued)

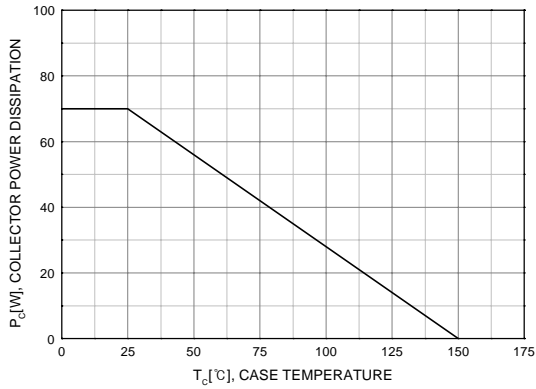
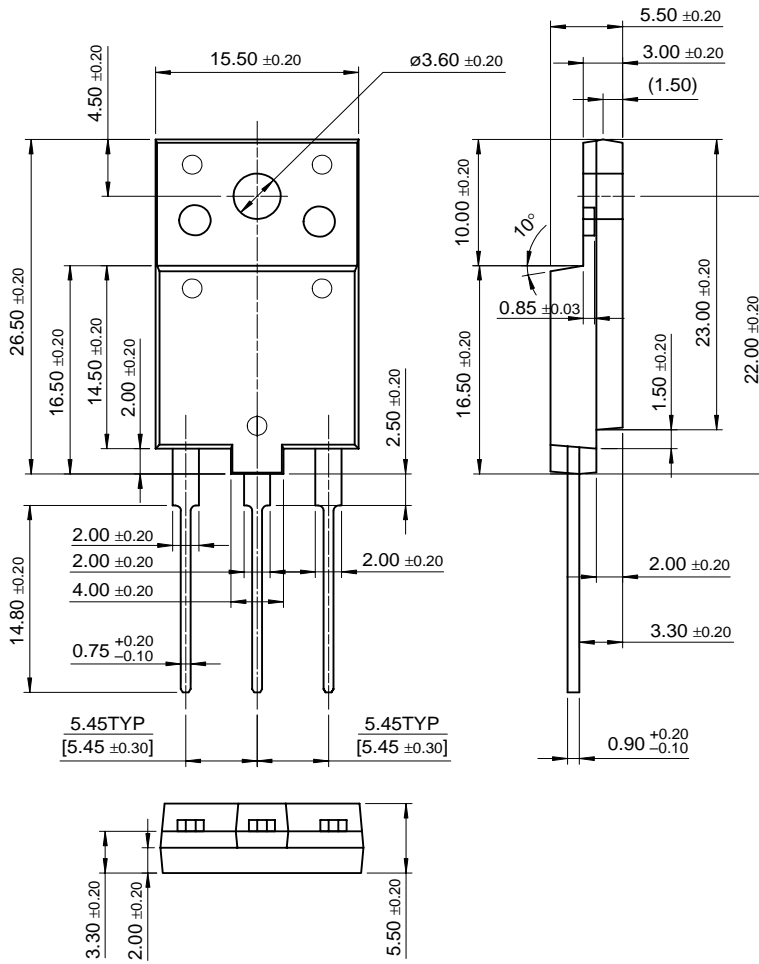


Figure 7. Power Derating

Package Dimensions

FJAF4210

TO-3PF



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E ² CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I ² C™	OCX™	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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