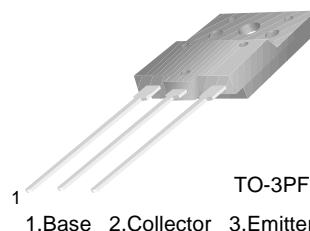


# FJAF4210

## 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	$\mu A$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = -6V, I_C = 0$			-10	$\mu A$
$h_{FE}$	* 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

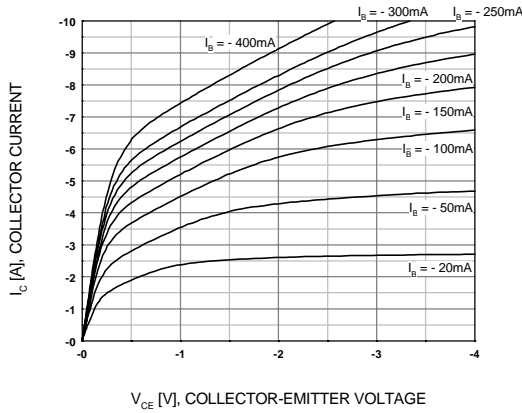


Figure 1. Static Characteristic

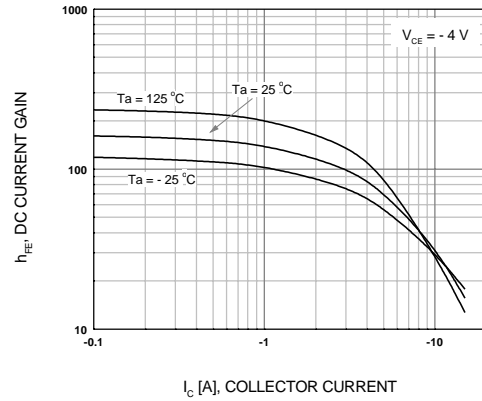


Figure 2. DC current Gain

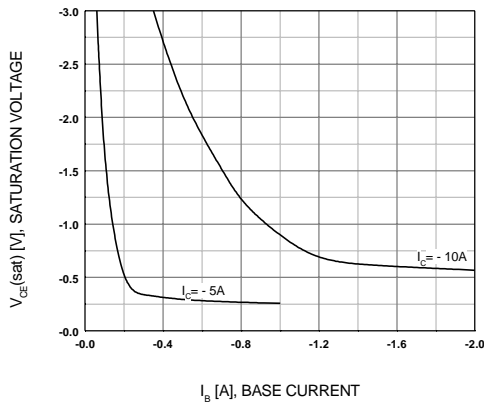


Figure 3.  $V_{CE(sat)}$  vs.  $I_B$  Characteristics

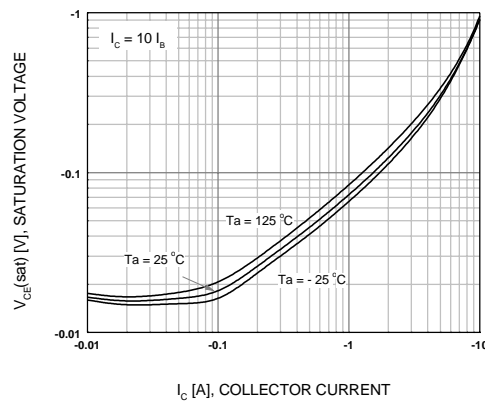


Figure 4. Collector-Emitter Saturation Voltage

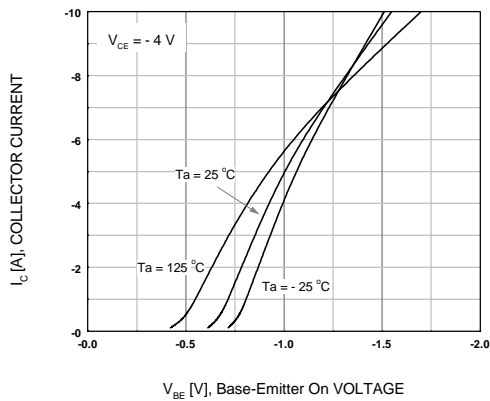


Figure 5. Base-Emitter On Voltage

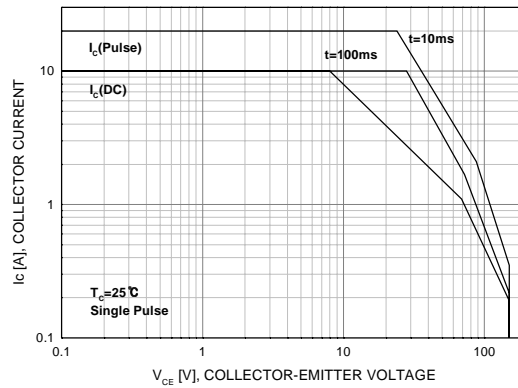


Figure 6. Forward Bias Safe Operating Area

### Typical Characteristics (Continued)

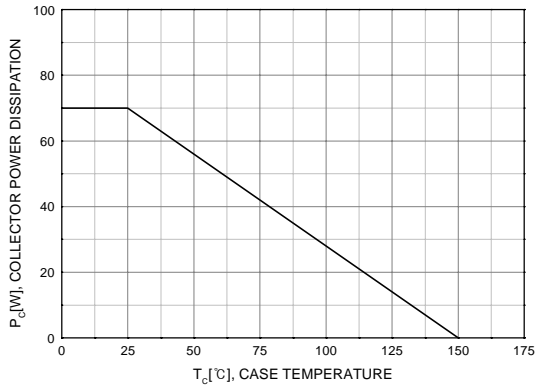


Figure 7. Power Derating



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ActiveArray <sup>™</sup>	FACT Quiet series <sup>™</sup>	ISOPLANAR <sup>™</sup>	POP <sup>™</sup>	Stealth <sup>™</sup>
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CROSSVOLT <sup>™</sup>	FRFET <sup>™</sup>	MicroPak <sup>™</sup>	QFET <sup>™</sup>	SuperSOT <sup>™</sup> -8
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