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October 2008

FJA4210 PNP Epitaxial Silicon Transistor

- Audio Power Amplifier
- High Current Capability : I_C= -10A
- High Power Dissipation
- Wide S.O.A
- Complement to FJA4310



Absolute Maximum Ratings* T_a = 25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V _{CBO}	Collector-Base Voltage	-200	V
V _{CEO}	Collector-Emitter Voltage	-140	V
V _{EBO}	Emitter-Base Voltage	-6	V
l _C	Collector Current (DC)	-10	Α
I _B	Base Current (DC)	-1.5	Α
P _C	Collector Dissipation (T _C =25°C)	100	W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	- 55 ~ 150	°C

^{*} These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Electrical Characteristics* Ta=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	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} =∞	-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	μΑ
I _{EBO}	Emitter Cut-off Current	V_{EB} =-6V, I_{C} =0			-10	μΑ
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: Pulse Width≤300μs, Duty Cycle≤2%

h_{FE} Classification

Classification	R	0	Y
h _{FE}	50 ~ 100	70 ~ 140	90 ~ 180

Typical Characteristics

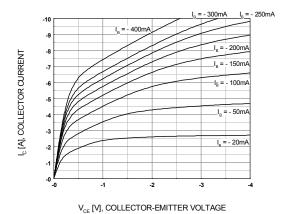


Figure 1. Static Characterstic

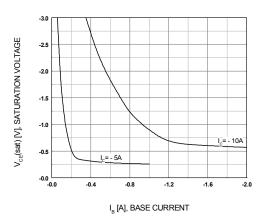


Figure 3. $V_{CE}(sat)$ vs. I_{B} Characteristics

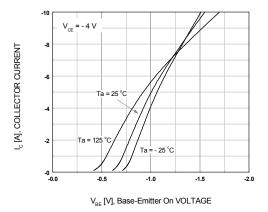


Figure 5. Base-Emitter On Voltage

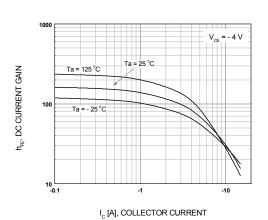


Figure 2. DC current Gain

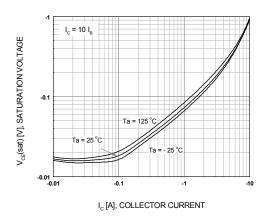
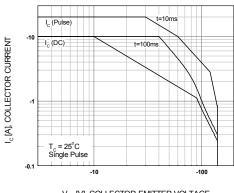


Figure 4. Collector-Emitter Saturation Voltage



 V_{CE} [V], COLLECTOR-EMITTER VOLTAGE

Figure 6. Forward Bias Safe Operating Area

Typical Characteristics (Continued)

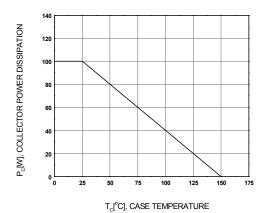
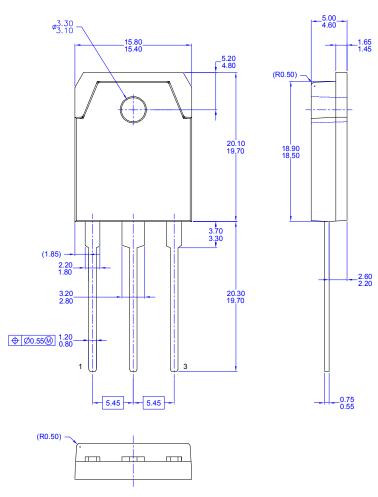


Figure 7. Power Derating

Package Dimension (TO-3P)



NOTES:

- NOTES:

 A) THIS PACKAGE CONFORMS TO EIAJ
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 B) ALL DIMENSIONS ARE IN MILLIMETERS.
 C) DIMENSIONING AND TOLERANCING PER
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