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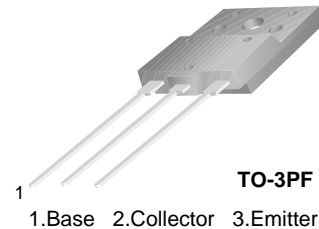


October 2009

FJAF4210 PNP Epitaxial Silicon Transistor

Features

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



Absolute Maximum Ratings* $T_A=25^\circ C$ 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 $T_A=25^\circ C$ 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 Performance Characteristics

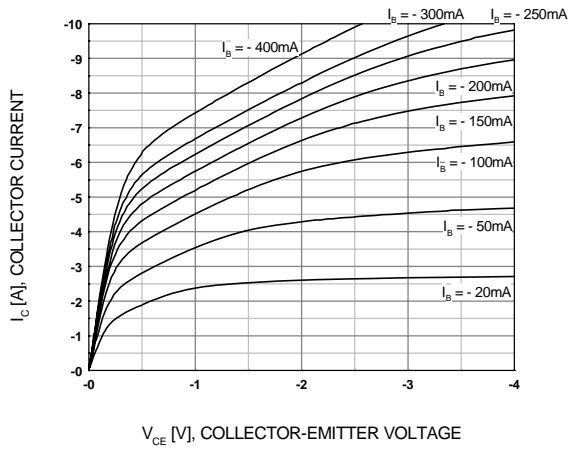


Figure 1. Static Characteristic

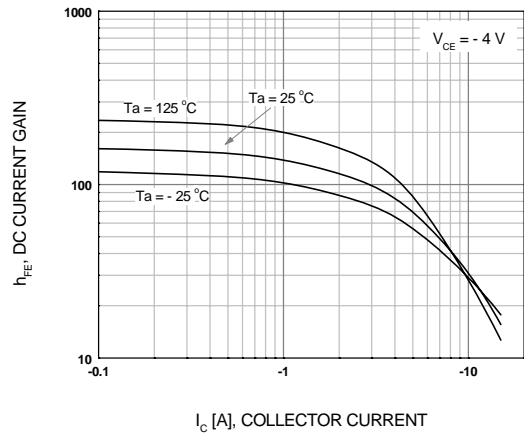


Figure 2. DC current Gain

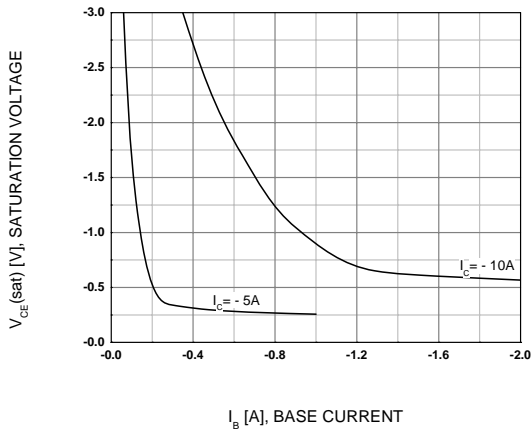


Figure 3. $V_{CE(sat)}$ vs. I_B Characteristics

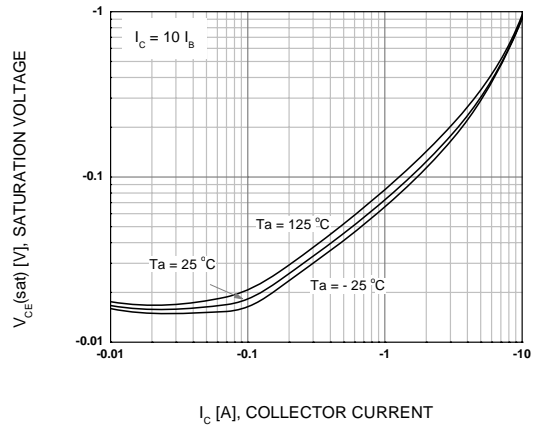


Figure 4. Collector-Emitter Saturation Voltage

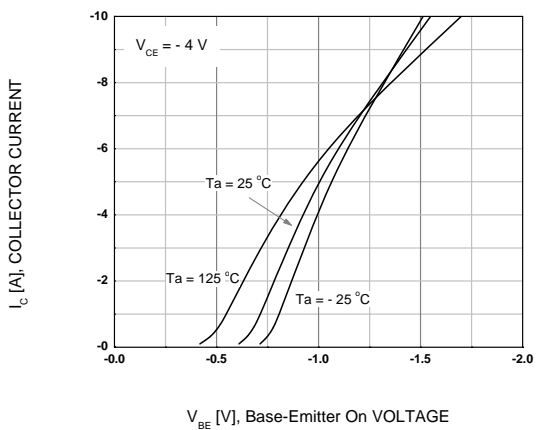


Figure 5. Base-Emitter On Voltage

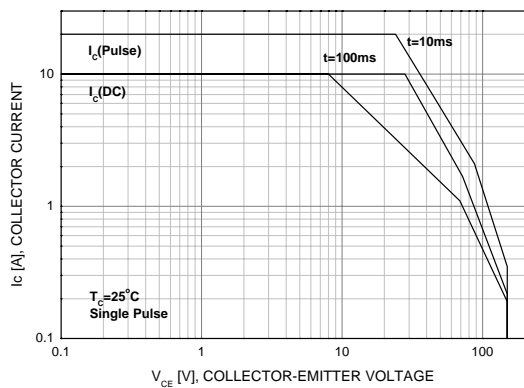


Figure 6. Forward Bias Safe Operating Area

Typical Performance Characteristics

(Continued)

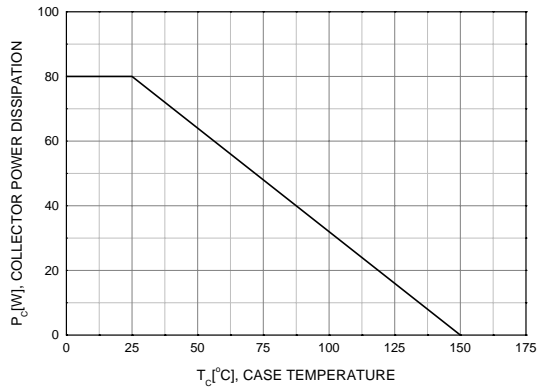


Figure 7. Power Derating

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