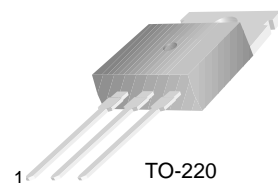


FJP3835

FJP3835

Power Amplifier

- High Current Capability : $I_C=8A$
- High Power Dissipation
- Wide S.O.A



1.Base 2.Collector 3.Emitter

NPN 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	120	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current (DC)	8	A
I_{CP}	Collector Current (Pulse)	16	A
P_C	Collector Dissipation ($T_C=25^\circ C$)	50	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	$I_C=10mA, R_{BE}=\infty$	120			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=5mA, I_C=0$	8			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=80V, I_E=0$			0.1	mA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=4V, I_C=0$			0.1	mA
h_{FE}	* DC Current Gain	$V_{CE}=4V, I_C=3A$	120		250	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3A, I_B=0.3A$			0.5	V
$V_{BE(sat)}$	Base-Emitter On Voltage	$I_C=3A, I_B=0.3A$			1.2	V
f_T	Current Gain Bandwidth Product	$V_{CE}=5V, I_C=1A$		30		MHz
C_{ob}	Output Capacitance	$V_{CB}=10V, f=1MHz$		210		pF
t_{ON}	Turn On Time	$V_{CC}=20V,$ $I_C=1A=10I_{B1}=-10I_{B2}$ $R_L=20\Omega$		0.26		μs
t_F	Fall Time			0.68		μs
t_{STG}	Storage Time			6.68		μs

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

Typical Characteristics

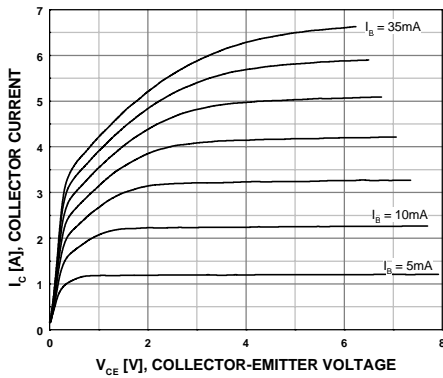


Figure 1. Static Characteristic

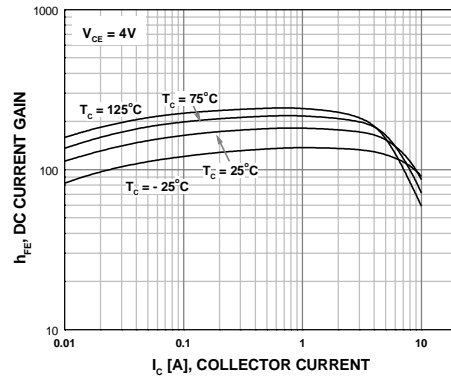


Figure 2. DC current Gain

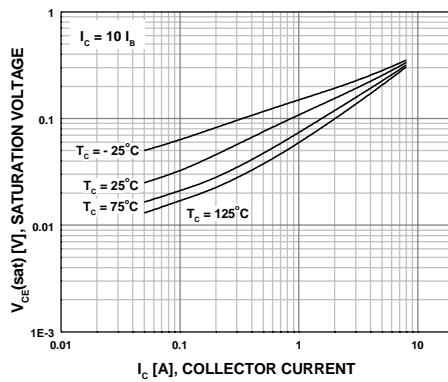


Figure 3. Collector-Emitter Saturation Voltage

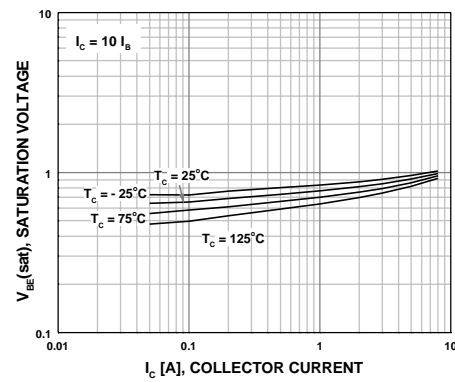


Figure 4. Base-Emitter Saturation Voltage

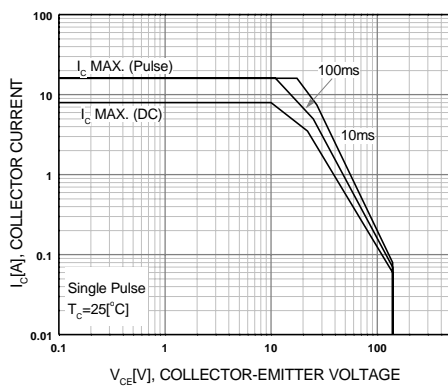


Figure 5. Safe Operating Area

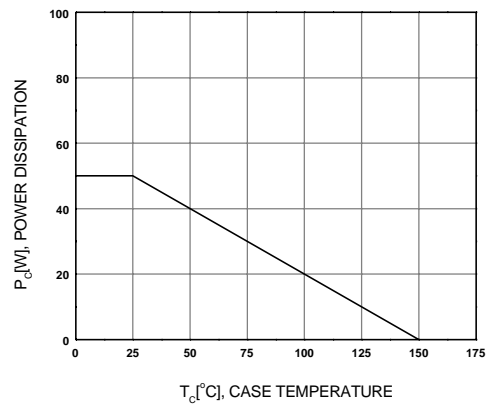


Figure 6. Power Derating

Technical drawing of a 3-pin connector with dimensions in millimeters.

Top View Dimensions:

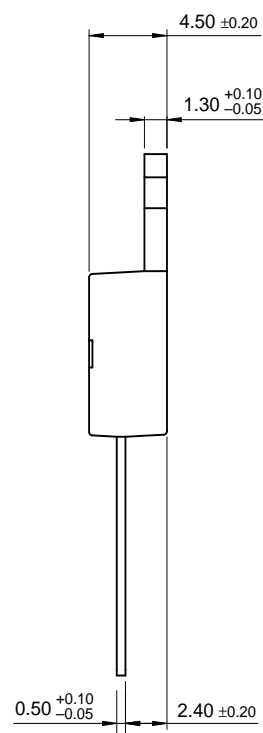
- Overall width: 9.90 ± 0.20
- Pin spacing (center-to-center): 1.27 ± 0.10 and 1.52 ± 0.10
- Pin diameter: $\varnothing 3.60 \pm 0.10$
- Overall height: 18.95 MAX.
- Individual pin heights: 1.30 ± 0.10 and 2.80 ± 0.10
- Chamfer angle: 45°

Side View Dimensions:

- Overall width: 10.00 ± 0.20
- Pin diameter: $\varnothing 3.60 \pm 0.10$

Material and Quantity:

- Material: 2.54 TYP
- Quantity: $[2.54 \pm 0.20]$



Rev. A, December 2003

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