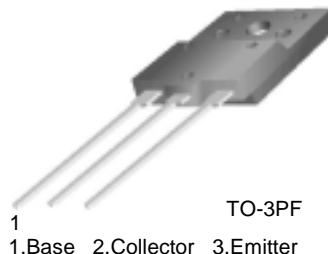


FJAF6810

High Voltage Color Display Horizontal Deflection Output

- High Collector-Base Breakdown Voltage : $BV_{CBO} = 1500V$
- High Switching Speed : $t_f(\text{typ.}) = 0.1\mu s$
- For Color Monitor



NPN Triple Diffused Planar Silicon Transistor

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

Symbol	Parameter	Rating	Units
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	750	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current (DC)	10	A
I_{CP}^*	Collector Current (Pulse)	20	A
P_C	Collector Dissipation	60	W
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

* Pulse Test: Pulse Width=5ms, Duty Cycle \leq 10%

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

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
I_{CES}	Collector Cut-off Current	$V_{CB}=1400V, R_{BE}=0$			1	mA
I_{CBO}	Collector Cut-off Current	$V_{CB}=800V, I_E=0$			10	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=4V, I_C=0$			1	mA
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=500\mu A, I_C=0$	6			V
h_{FE1}	DC Current Gain	$V_{CE}=5V, I_C=1A$	10			
h_{FE2}		$V_{CE}=5V, I_C=6A$	5		8	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C=6A, I_B=1.5A$			3	V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C=6A, I_B=1.5A$			1.5	V
t_{STG}^*	Storage Time	$V_{CC}=200V, I_C=6A, R_L=33\Omega$ $I_{B1}=1.2A, I_{B2}=-2.4A$			3	μs
t_F^*	Fall Time				0.2	μs

* Pulse Test: PW=20 μs , duty Cycle=1% Pulsed

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

Symbol	Parameter	Typ	Max	Units
$R_{\theta JC}$	Thermal Resistance, Junction to Case		2.08	$^\circ C/W$

Typical Characteristics

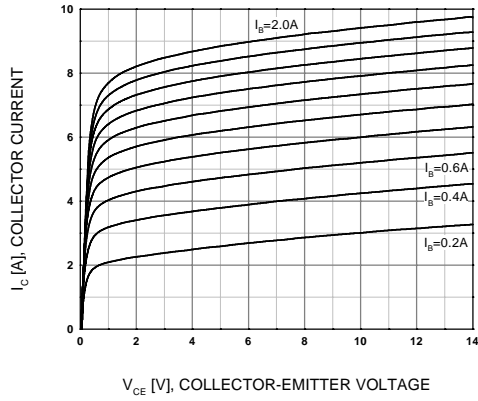


Figure 1. Static Characteristic

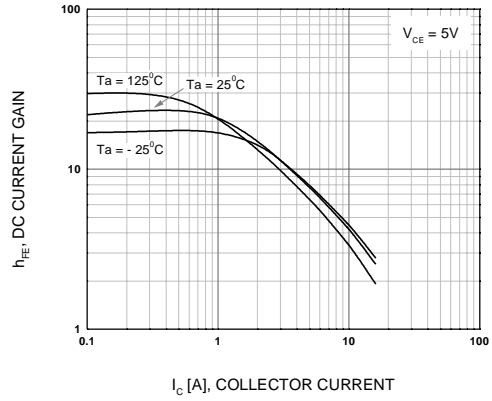


Figure 2. DC current Gain

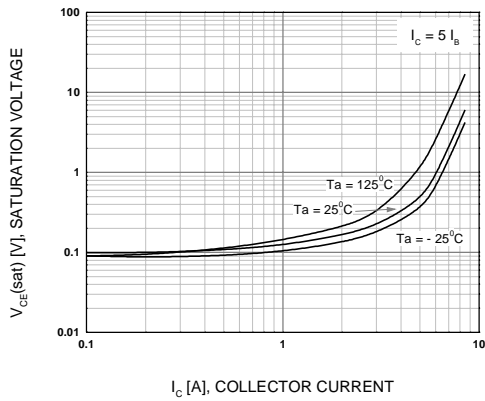


Figure 3. Collector-Emitter Saturation Voltage

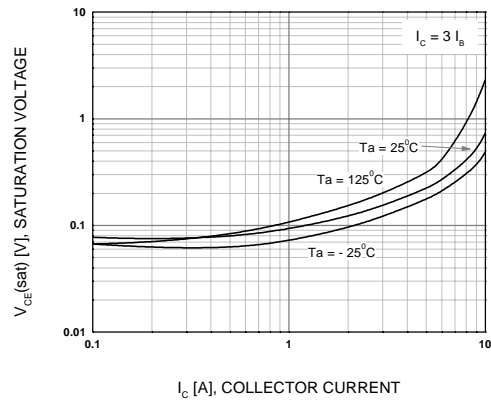


Figure 4. Collector-Emitter Saturation Voltage

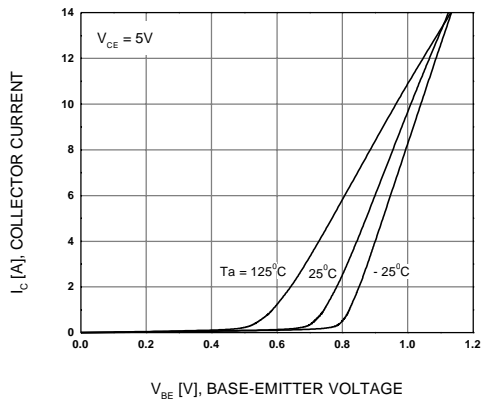


Figure 5. Base-Emitter On Voltage

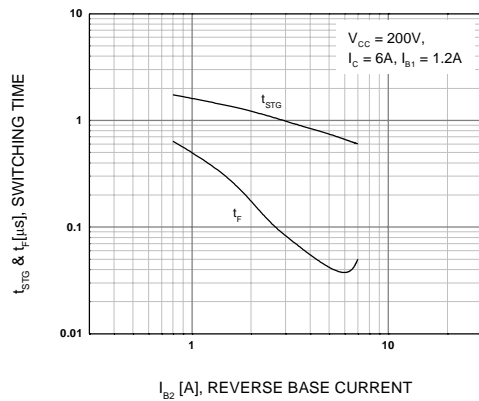


Figure 6. Resistive Load Switching Time

Typical Characteristics (Continued)

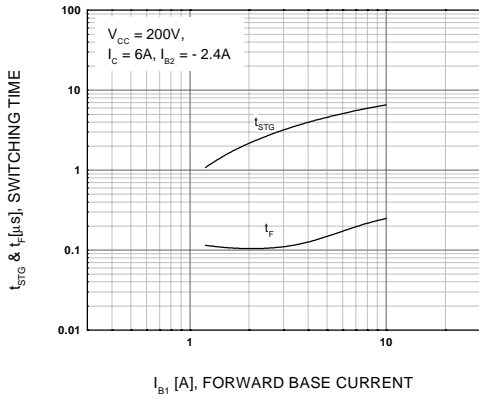


Figure 7. Resistive Load Switching Time

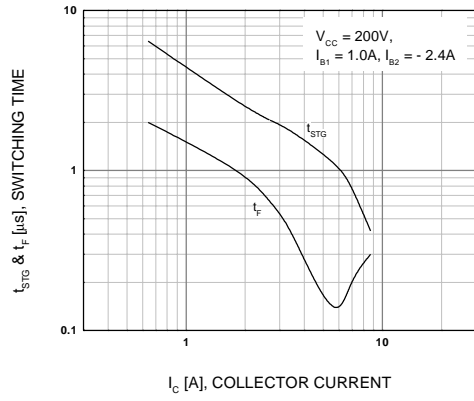


Figure 8. Resistive Load Switching Time

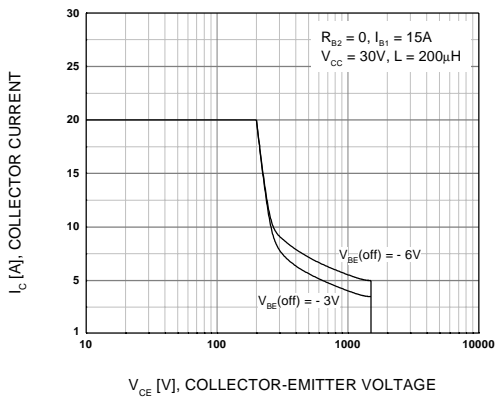


Figure 9. Reverse Bias Safe Operating Area

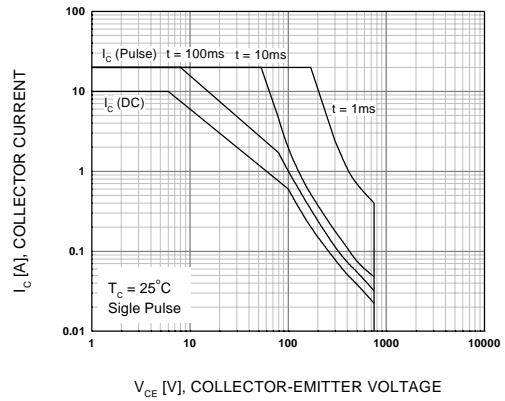


Figure 10. Forward Bias Safe Operating Area

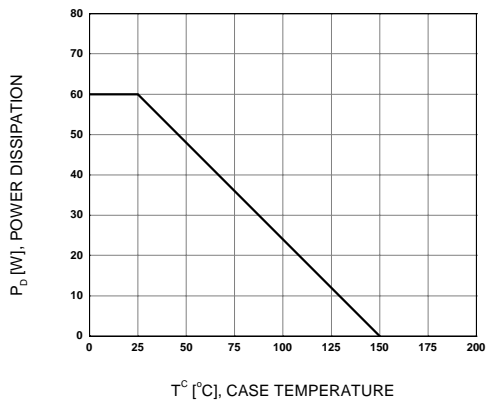


Figure 11. Power Derating

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Definition of Terms

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Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

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FJAF6810

NPN Triple Diffused Planar Silicon Transistor

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Features

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Product	Product status	Pb-free Status	Package type	Leads	Packing method	Package Marking Convention**
FJAF6810ATU	Lifetime Buy		TO-3PF	3	RAIL	N/A
FJAF6810AYDTBTU	Lifetime Buy		TO-3PF	3	RAIL	Line 1: \$Y (Fairchild logo)
FJAF6810TU	Lifetime Buy		TO-3PF	3	RAIL	Line 1: \$Y (Fairchild logo) Line 2: J6810 Line 3: &3



Indicates product with Pb-free second-level interconnect. For more information [click here](#).

Package marking information for product FJAF6810 is available. [Click here for more information](#).

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Qualification Support

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