

## **FJAF6810A**

# **High Voltage Color Display Horizontal Deflection Output**

- High Collector-Base Breakdown Voltage : BV<sub>CBO</sub> = 1550V
- High Switching Speed : t<sub>F</sub>(typ.) =0.1μs
- For Color Monitor



# **NPN Triple Diffused Planar Silicon Transistor**

### Absolute Maximum Ratings T<sub>C</sub>=25°C unless otherwise noted

Symbol	Parameter	Rating	Units
V <sub>CBO</sub>	Collector-Base Voltage	1550	V
$V_{CEO}$	Collector-Emitter Voltage	750	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current (DC)	10	Α
I <sub>CP</sub> *	Collector Current (Pulse)	20	Α
P <sub>C</sub>	Collector Dissipation	60	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

<sup>\*</sup> Pulse Test: Pulse Width=5ms, Duty Cycle ≤ 10%

### Electrical Characteristics T<sub>C</sub>=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Тур	Max	Units
I <sub>CES</sub>	Collector Cut-off Current	V <sub>CB</sub> =1400V, R <sub>BE</sub> =0			1	mA
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> =800V, I <sub>E</sub> =0			10	μΑ
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> =4V, I <sub>C</sub> =0			1	mA
BV <sub>EBO</sub>	Base-Emitter Breakdown Voltage	I <sub>E</sub> =500μA, I <sub>C</sub> =0	6			V
h <sub>FE1</sub>	DC Current Gain	V <sub>CE</sub> =5V, I <sub>C</sub> =1A	10			
$h_{FE2}$		$V_{CE}$ =5V, $I_{C}$ =6A	5		8	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> =6A, I <sub>B</sub> =1.5A			3	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	I <sub>C</sub> =6A, I <sub>B</sub> =1.5A			1.5	V
t <sub>STG</sub> *	Storage Time	$V_{CC}$ =200V, $I_{C}$ =6A, $R_{L}$ =33 $\Omega$			3	μS
t <sub>F</sub> *	Fall Time	I <sub>B1</sub> =1.2A, I <sub>B2</sub> = - 2.4A			0.2	μS

<sup>\*</sup> Pulse Test: PW=20μs, duty Cycle=1% Pulsed

### Thermal Characteristics $T_C=25$ °C unless otherwise noted

Symbol	Parameter	Тур	Max	Units
$R_{\theta jC}$	Thermal Resistance, Junction to Case		2.08	°C/W

# **Typical Characteristics**

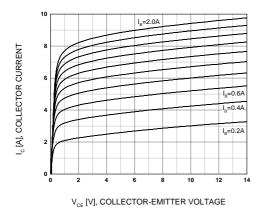


Figure 1. Static Characteristic

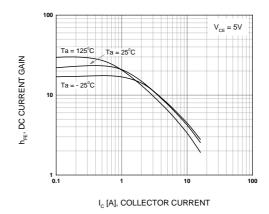


Figure 2. DC current Gain

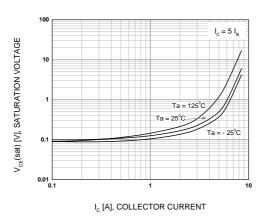


Figure 3. Collector-Emitter Saturation Voltage

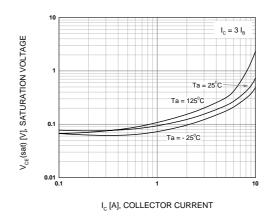


Figure 4. Collector-Emitter Saturation Voltage

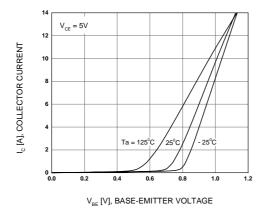


Figure 5. Base-Emitter On Voltage

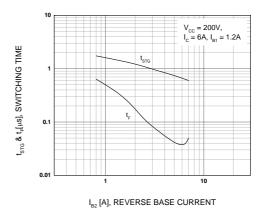


Figure 6. Resistive Load Switching Time

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# **Typical Characteristics** (Continued)

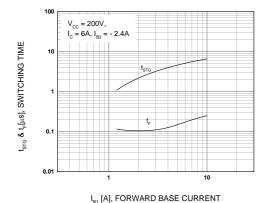


Figure 7. Resistive Load Switching Time

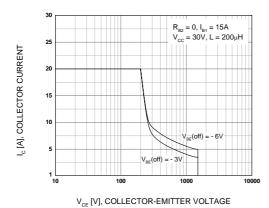


Figure 9. Reverse Bias Safe Operating Area

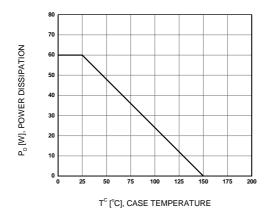


Figure 11. Power Derating

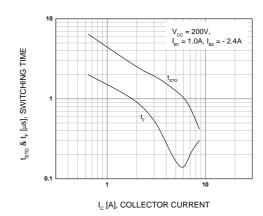


Figure 8. Resistive Load Switching Time

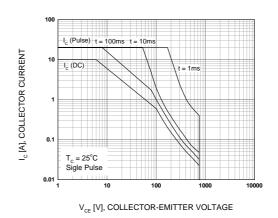
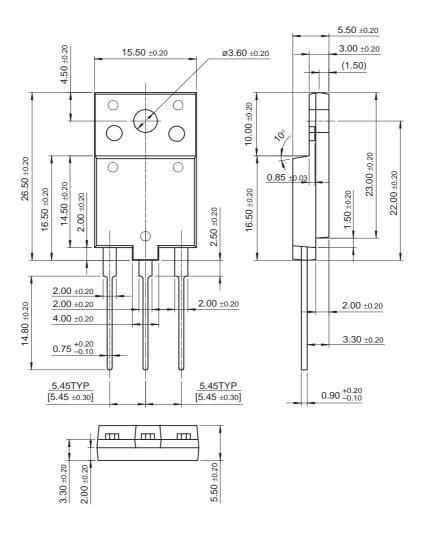


Figure 10. Forward Bias Safe Operating Area

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# **Package Dimensions**

# TO-3PF



Dimensions in Millimeters

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Programmable Active Droop™	POP™	SuperSOT™-3	

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