

# FJAF6812

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## 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)	12	A
$I_{CP}^*$	Collector Current (Pulse)	24	A
$P_C$	Collector Dissipation	60	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ C$

\* Pulse Test:  $PW=300\mu s$ , duty Cycle=2% Pulsed

### 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	$\mu A$
$I_{EBO}$	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
$h_{FE1}$ $h_{FE2}$	DC Current Gain	$V_{CE}=5V, I_C=1A$ $V_{CE}=5V, I_C=8A$	10 5		40 8	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C=8A, I_B=2A$			3	V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C=8A, I_B=2A$			1.5	V
$t_{STG}^*$	Storage Time	$V_{CC}=200V, I_C=7A, R_L=30\Omega$ $I_{B1}=1.4A, I_{B2}=-2.8A$			3	$\mu s$
$t_f^*$	Fall Time				0.2	$\mu s$

\* Pulse Test:  $PW=20\mu s$ , 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	1.4	2.08	$^\circ C/W$

# Typical Characteristics

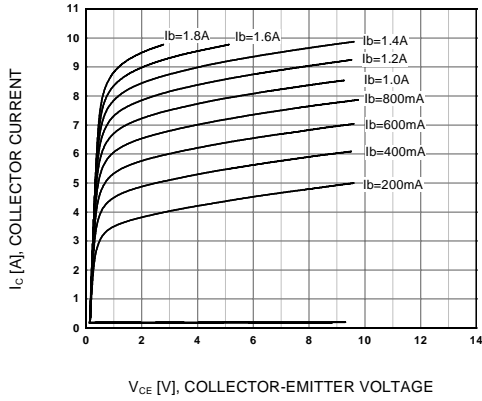


Figure 1. Static Characteristics

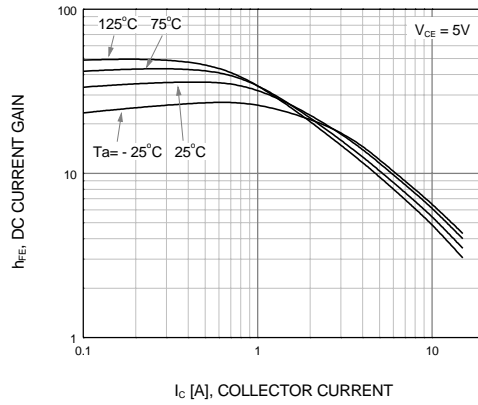


Figure 2. DC Current Gain

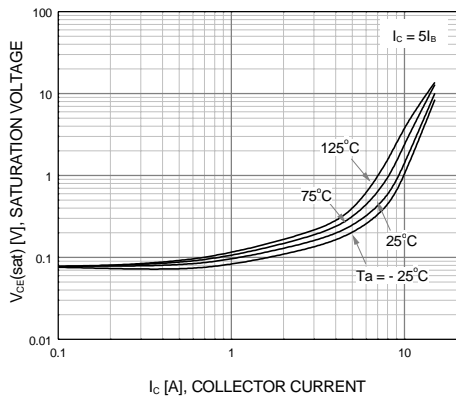


Figure 3. Collector-Emitter Saturation Voltage

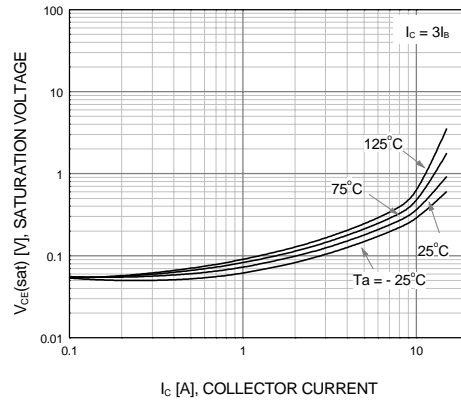


Figure 4. Collector-Emitter Saturation Voltage

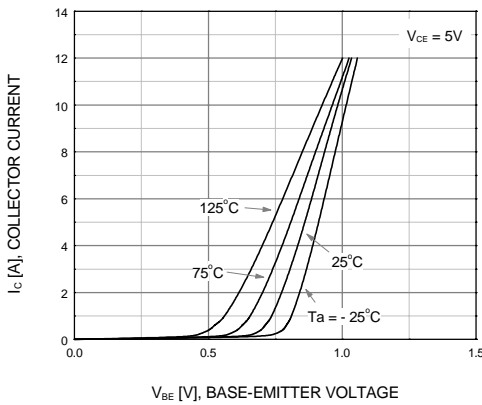


Figure 5. Base-Emitter On Voltage

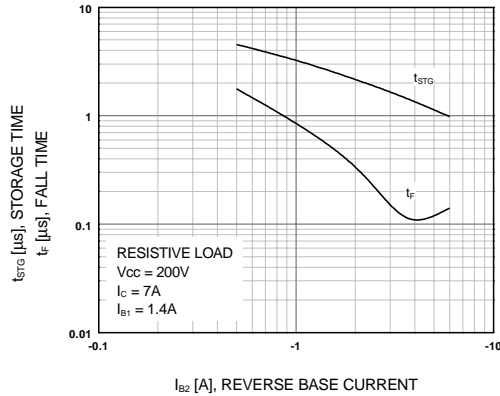


Figure 6. Switching Time

Typical Characteristics (Continued)

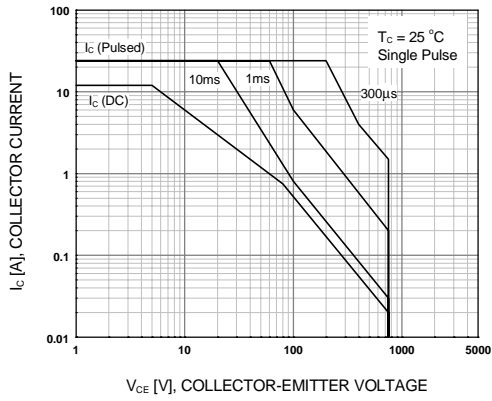


Figure 7. Forward Bias Safe Operating Area

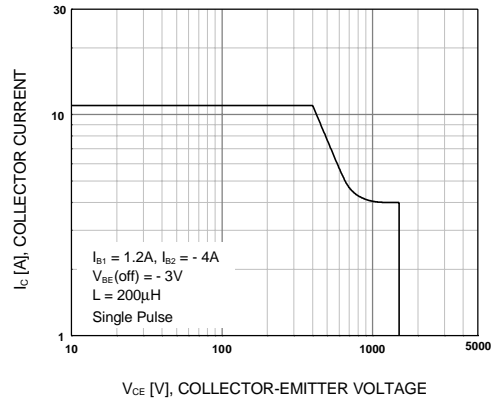


Figure 8. Reverse Bias Safe Operating Area

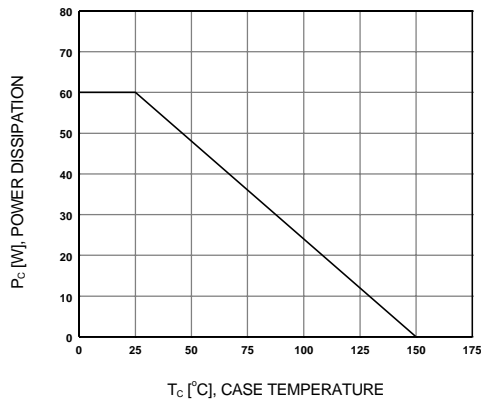
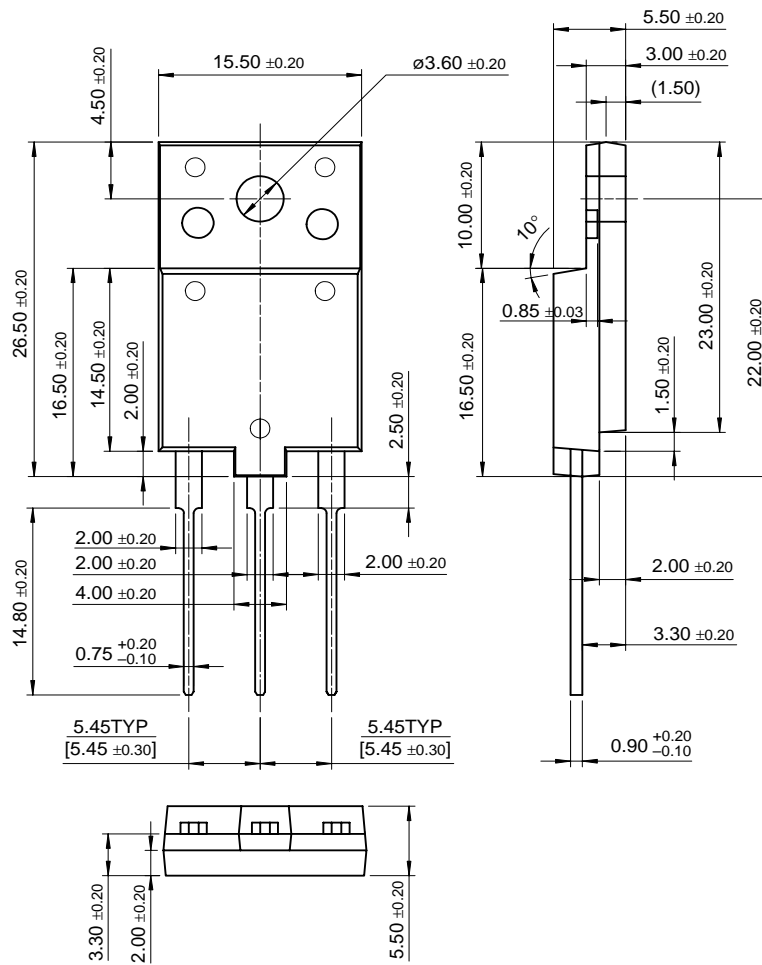


Figure 9. Power Derating

# Package Dimensions

FJAF6812

## TO-3PF



Dimensions in Millimeters

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