

### **FJL6920**

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

- High Collector-Base Breakdown Voltage : BV<sub>CBO</sub> = 1700V
- Low Saturation Voltage : V<sub>CE</sub>(sat) = 3V (Max.)
- 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	1700	V
V <sub>CEO</sub>	Collector-Emitter Voltage	800	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current (DC)	20	Α
I <sub>CP</sub> *	Collector Current (Pulse)	30	Α
P <sub>C</sub>	Collector Dissipation	200	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

<sup>\*</sup> Pulse Test: PW=300µs, duty Cycle=2% Pulsed

### 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>CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> =500μA, I <sub>E</sub> =0	1700			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> =5mA, I <sub>B</sub> =0	800			V
BV <sub>EBO</sub>	Emitter-Base 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	8			
$h_{FE2}$		$V_{CE}$ =5V, $I_{C}$ =11A	5.5		8.5	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> =11A, I <sub>B</sub> =2.75A			3	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	I <sub>C</sub> =11A, I <sub>B</sub> =2.75A			1.5	V
t <sub>STG</sub> *	Storage Time	$V_{CC}$ =200V, $I_{C}$ =10A, $R_{L}$ =20 $\Omega$			3	μs
t <sub>F</sub> *	Fall Time	I <sub>B1</sub> =2.0A, I <sub>B2</sub> = - 4.0A		0.15	0.2	μs

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

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

Symbol	Parameter	Тур	Max	Units
$R_{\theta iC}$	Thermal Resistance, Junction to Case		0.625	°C/W

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# **Typical Characteristics**

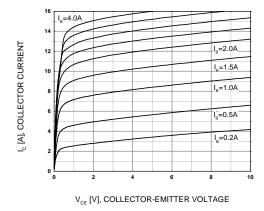


Figure 1. Static Characteristics

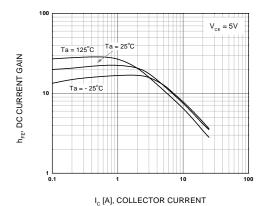


Figure 2. DC Current Gain

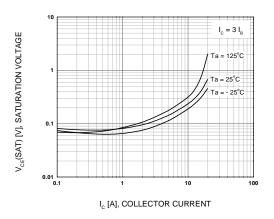


Figure 3. Collector-Emitter Saturation Voltage

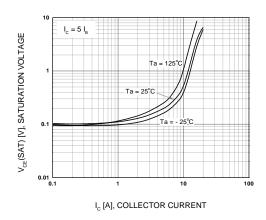


Figure 4. Collector-Emitter Saturation Voltage

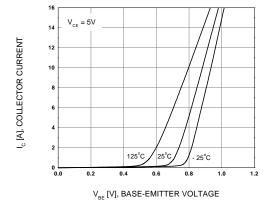


Figure 5. Base-Emitter On Voltage

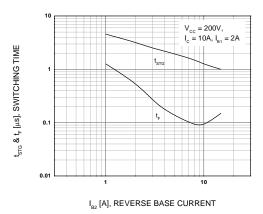


Figure 6. Resistive Load Switching Time

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## Typical Characteristics (Continued)

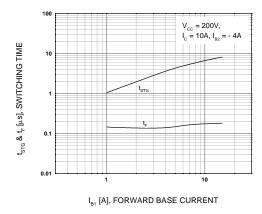


Figure 7. Resistive Load Switching Time

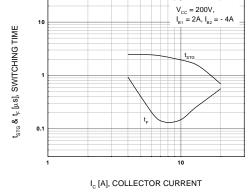


Figure 8. Resistive Load Switching Time

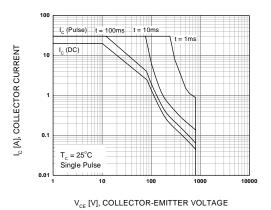


Figure 9. Forward Bias Safe Operating Area

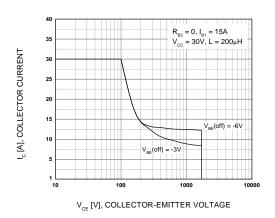


Figure 10. Reverse Bias Safe Operating Area

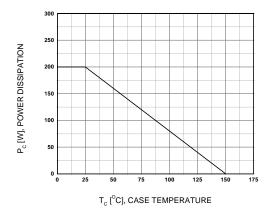
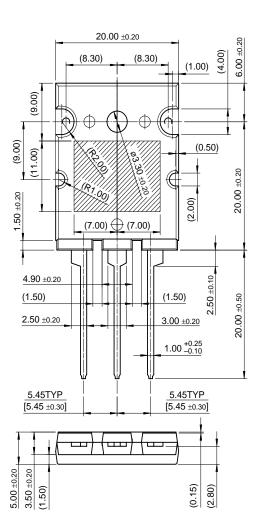


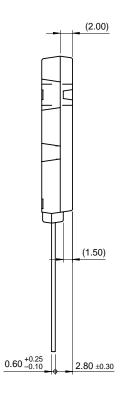
Figure 11. Power Derating

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# **Package Demensions**

TO-264





Dimensions in Millimeters

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