

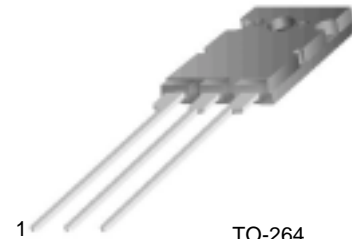


# FJL6920

FJL6920

## High Voltage Color Display Horizontal Deflection Output

- High Collector-Base Breakdown Voltage :  $BV_{CBO} = 1700V$
- Low Saturation Voltage :  $V_{CE(sat)} = 3V$  (Max.)
- For Color Monitor



1.Base 2.Collector 3.Emitter

## 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	1700	V
$V_{CEO}$	Collector-Emitter Voltage	800	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current (DC)	20	A
$I_{CP}^*$	Collector Current (Pulse)	30	A
$P_C$	Collector Dissipation	200	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
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C=500\mu A, I_E=0$	1700			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C=5mA, I_B=0$	800			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E=500\mu A, I_C=0$	6			V
$h_{FE1}$ $h_{FE2}$	DC Current Gain	$V_{CE}=5V, I_C=1A$ $V_{CE}=5V, I_C=11A$	8 5.5		8.5	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=11A, I_B=2.75A$			3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=11A, I_B=2.75A$			1.5	V
$t_{STG}^*$	Storage Time	$V_{CC}=200V, I_C=10A, R_L=20\Omega$			3	$\mu s$
$t_F^*$	Fall Time	$I_{B1}=2.0A, I_{B2}=-4.0A$		0.15	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		0.625	$^\circ C/W$

# Typical Characteristics

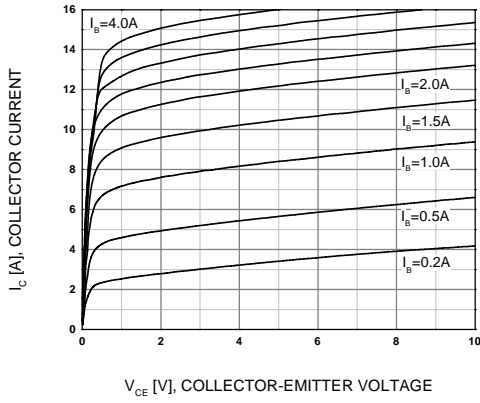


Figure 1. Static Characteristics

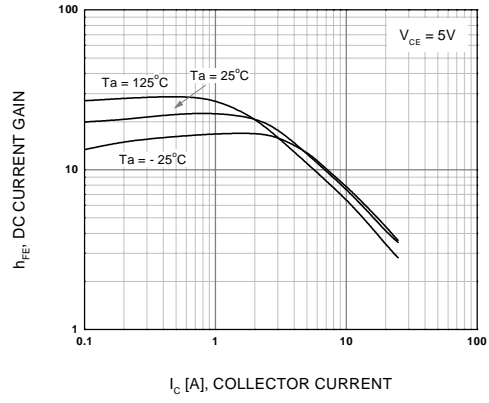


Figure 2. DC Current Gain

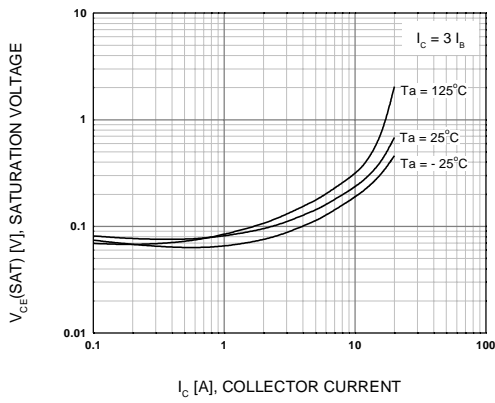


Figure 3. Collector-Emitter Saturation Voltage

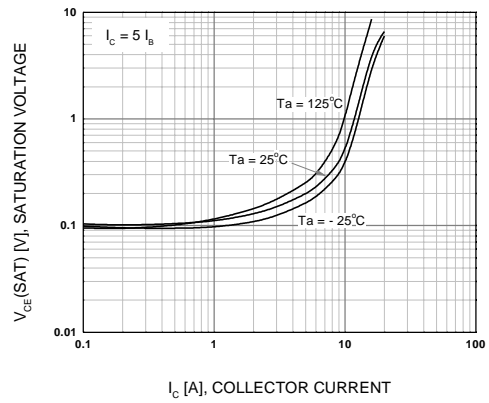


Figure 4. Collector-Emitter Saturation Voltage

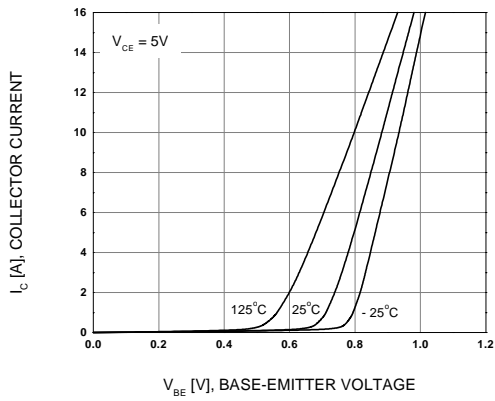


Figure 5. Base-Emitter On Voltage

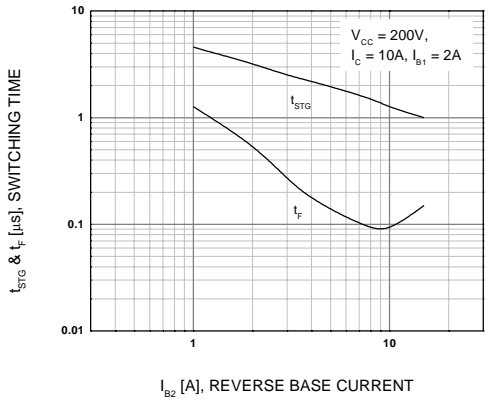


Figure 6. Resistive Load Switching Time

Typical Characteristics (Continued)

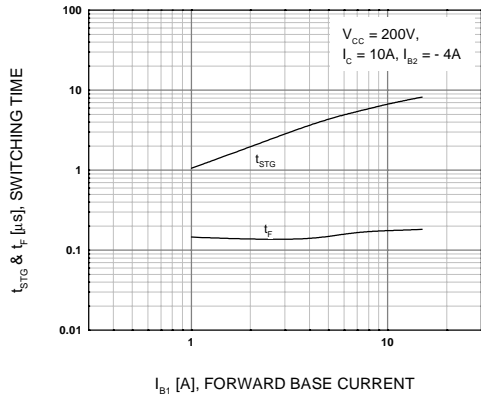


Figure 7. Resistive Load Switching Time

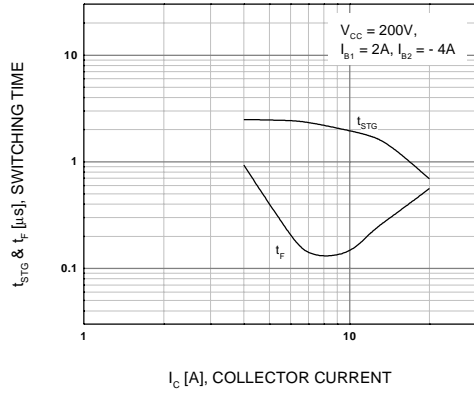


Figure 8. Resistive Load Switching Time

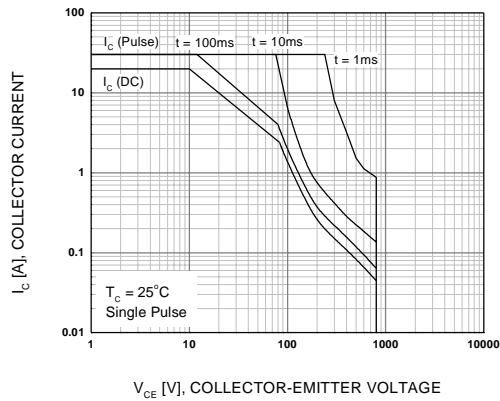


Figure 9. Forward Bias Safe Operating Area

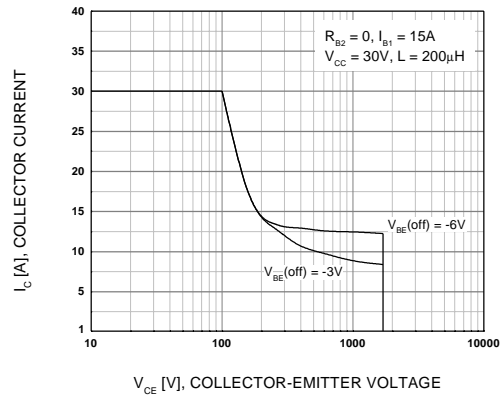


Figure 10. Reverse Bias Safe Operating Area

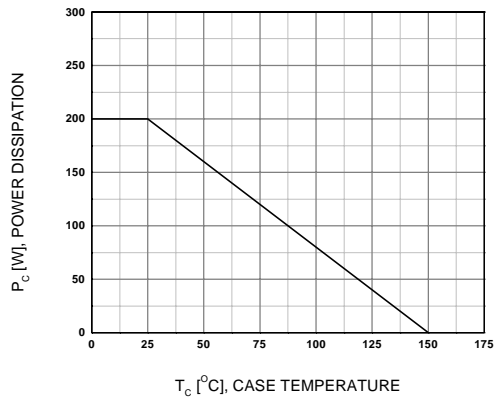
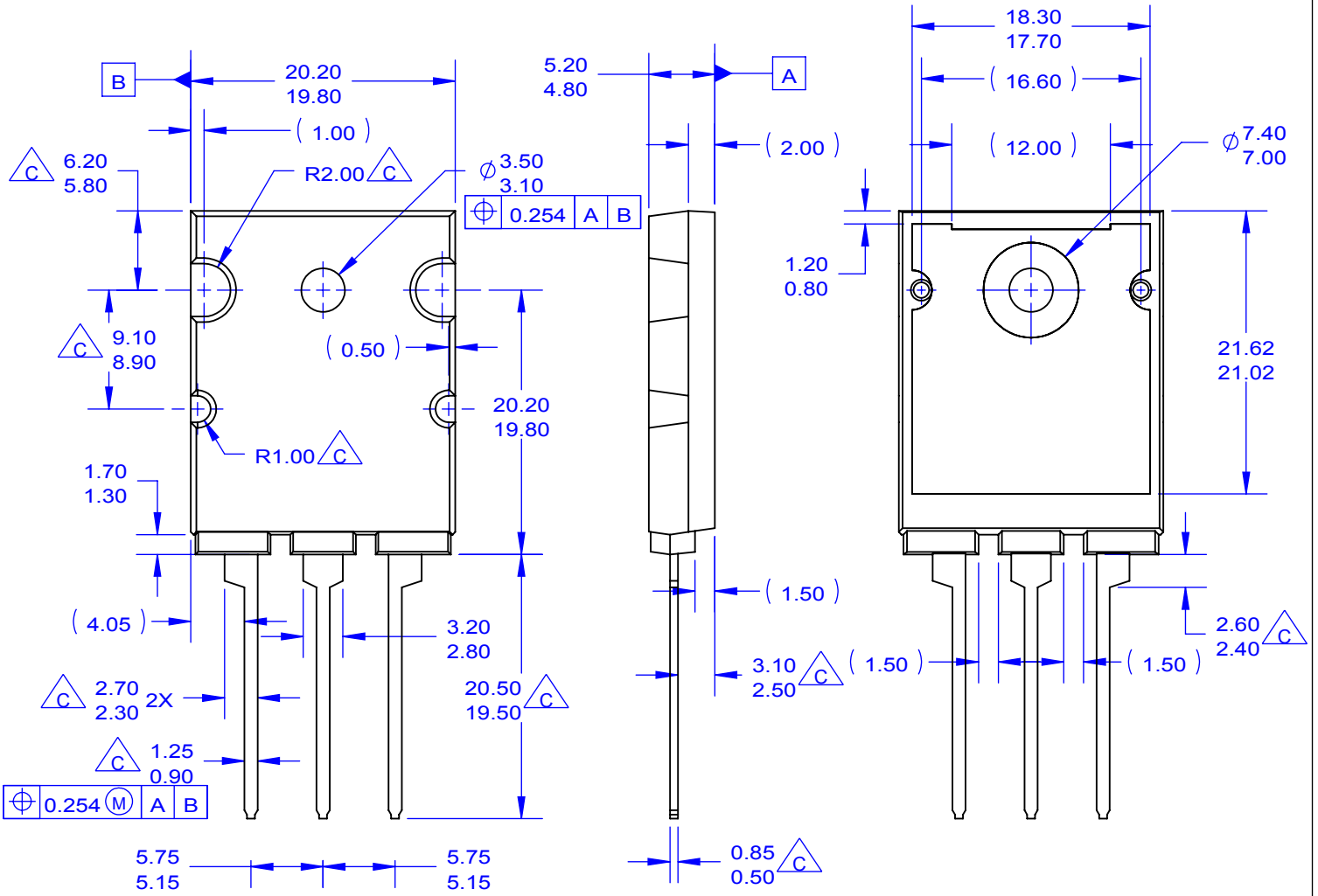


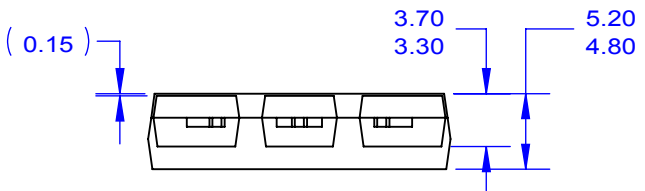
Figure 11. Power Derating



**FRONT VIEW**

**SIDE VIEW**

**BACK VIEW**



**BOTTOM VIEW**



**NOTES:**

- A. PACKAGE REFERENCE: JEDEC TO264 VARIATION AA.
- B. ALL DIMENSIONS ARE IN MILLIMETERS.
- $\triangle C$  OUT OF JEDEC STANDARD VALUE.
- D. DIMENSION AND TOLERANCE AS PER ASME Y14.5-1994.
- E. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
- F. THIS PACKAGE IS INTENDED ONLY FOR "FS PKG CODE AR"
- G. DRAWING FILE NAME: TO264A03REV2

ON Semiconductor and  are trademarks of Semiconductor Components Industries, LLC dba ON Semiconductor or its subsidiaries in the United States and/or other countries. ON Semiconductor owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of ON Semiconductor's product/patent coverage may be accessed at [www.onsemi.com/site/pdf/Patent-Marking.pdf](http://www.onsemi.com/site/pdf/Patent-Marking.pdf). ON Semiconductor reserves the right to make changes without further notice to any products herein. ON Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does ON Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using ON Semiconductor products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by ON Semiconductor. "Typical" parameters which may be provided in ON Semiconductor data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. ON Semiconductor does not convey any license under its patent rights nor the rights of others. ON Semiconductor products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use ON Semiconductor products for any such unintended or unauthorized application, Buyer shall indemnify and hold ON Semiconductor and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that ON Semiconductor was negligent regarding the design or manufacture of the part. ON Semiconductor is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

## PUBLICATION ORDERING INFORMATION

### LITERATURE FULFILLMENT:

Literature Distribution Center for ON Semiconductor  
19521 E. 32nd Pkwy, Aurora, Colorado 80011 USA  
**Phone:** 303-675-2175 or 800-344-3860 Toll Free USA/Canada  
**Fax:** 303-675-2176 or 800-344-3867 Toll Free USA/Canada  
**Email:** [orderlit@onsemi.com](mailto:orderlit@onsemi.com)

**N. American Technical Support:** 800-282-9855 Toll Free  
USA/Canada  
**Europe, Middle East and Africa Technical Support:**  
Phone: 421 33 790 2910  
**Japan Customer Focus Center**  
Phone: 81-3-5817-1050

**ON Semiconductor Website:** [www.onsemi.com](http://www.onsemi.com)  
**Order Literature:** <http://www.onsemi.com/orderlit>  
For additional information, please contact your local  
Sales Representative