
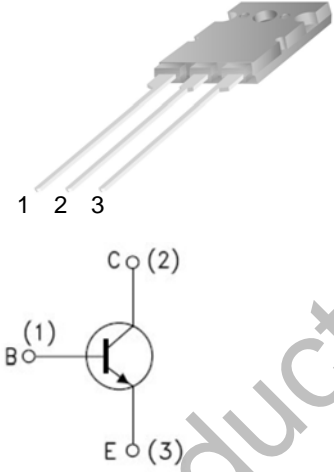


## WGC6920

**Features:**

- High Switching Speed
- High Breakdown Voltage- $V(BR)_{CBO}=1200V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

TO-264 



1. Base (B)  
2. Collector (C)  
3. Emitter (E)

**ABSOLUTE RATINGS (T<sub>c</sub>=25 °C)**

Parameter		Symbol	Value	Unit
Collector-Base Voltage		$BV_{CBO}$	1200	V
Collector-Emitter Voltage		$BV_{CEO}$	800	V
Emitter-Base Voltage		$BV_{EBO}$	6	V
Collector Current	DC	$I_C$	20	A
	Pulse	$I_{CP}$	35	
Base Current		$I_B$	11	A
Collector Power Dissipation		$P_C$	140	W
Max. Junction Temperature		$T_j$	150	
Storage Temperature Range		$T_{STG}$	-55~+150	

**ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25 )**

Parameter	Tests conditions	Min	Max	Unit
V(BR) <sub>CEO</sub>	I <sub>C</sub> =5mA, I <sub>B</sub> =0	800		V
V(BR) <sub>CBO</sub>	I <sub>C</sub> =500uA, I <sub>E</sub> =0	1200		V
V(BR) <sub>EBO</sub>	I <sub>E</sub> =500uA, I <sub>C</sub> =0	6		V
I <sub>CBO</sub>	V <sub>CB</sub> =800V, I <sub>E</sub> =0		10	μA
I <sub>EBO</sub>	V <sub>EB</sub> = 4V, I <sub>C</sub> =0		1	mA
H <sub>FE</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 1A	8		
	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 11 A	5.5	8.5	
V <sub>CE(sat)</sub>	I <sub>C</sub> =11A, I <sub>B</sub> =2.75A		3	V
V <sub>BE(sat)</sub>	I <sub>C</sub> =11A, I <sub>B</sub> =2.75A		1.5	V
tf	V <sub>CC</sub> =200V, I <sub>C</sub> =10A, R <sub>L</sub> =20Ω		0.2	μs
ts	I <sub>B1</sub> =2.0A, I <sub>B2</sub> =-4.0A		3	μs

**Thermal Characteristics**

Symbol	Parameter	Typ.	Max.	Unit
R <sub>θJC</sub>	Thermal Resistance, Junction to Case	-	2.08	°C/W

### Typical Characteristics

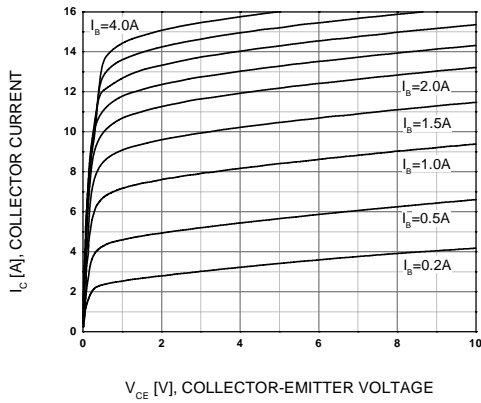


Figure 1. Static Characteristics

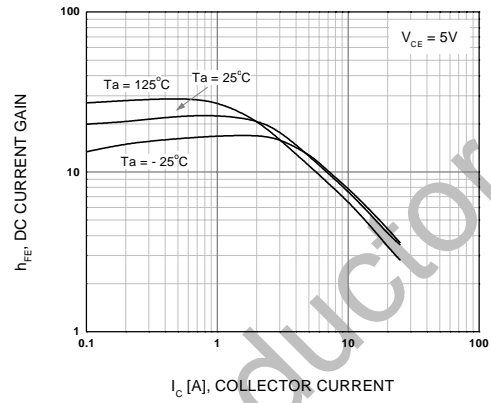


Figure 2. DC Current Gain

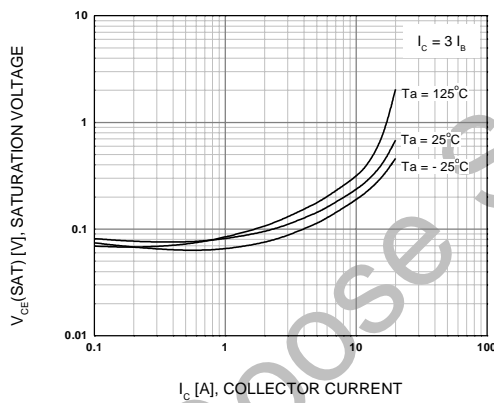


Figure 3. Collector-Emitter Saturation Voltage

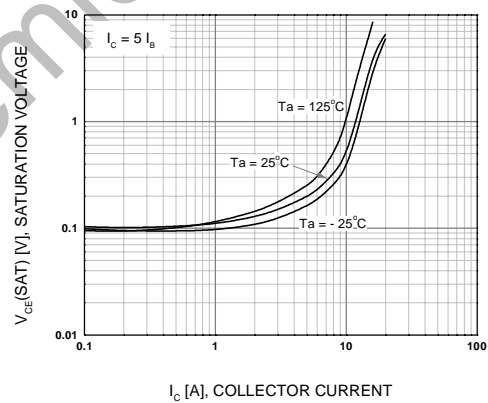


Figure 4. Collector-Emitter Saturation Voltage

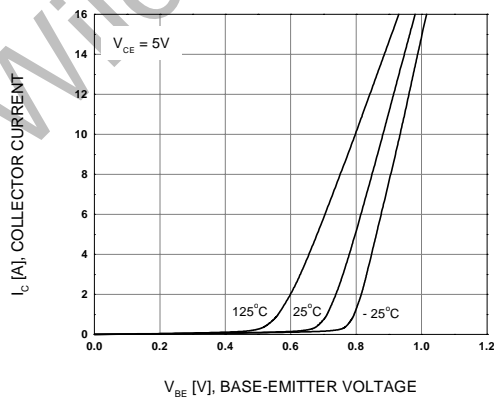


Figure 5. Base-Emitter On Voltage

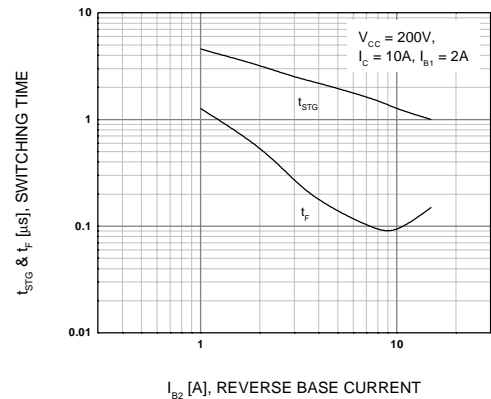


Figure 6. Resistive Load Switching Time

Typical Characteristics

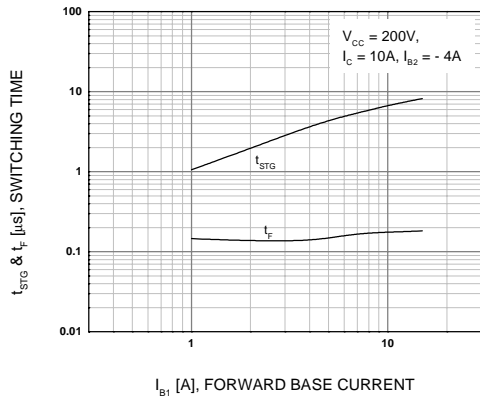


Figure 7. Resistive Load Switching Time

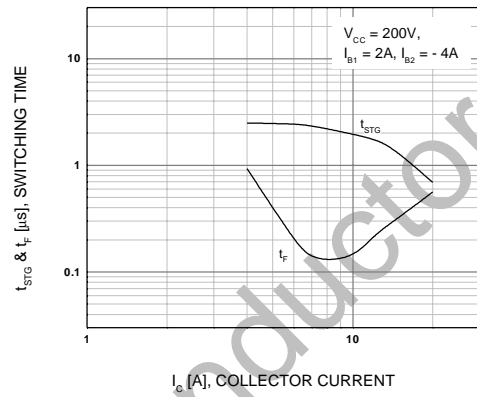


Figure 8. Resistive Load Switching Time

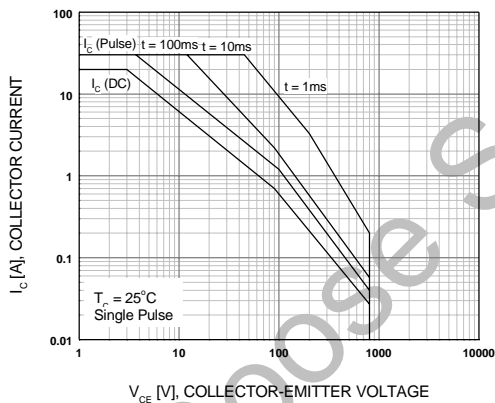


Figure 9. Forward Bias Safe Operating Area

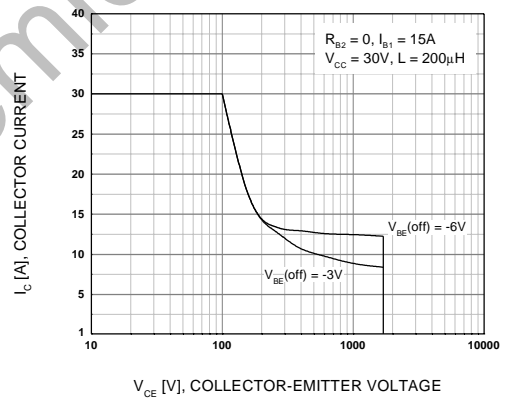


Figure 10. Reverse Bias Safe Operating Area

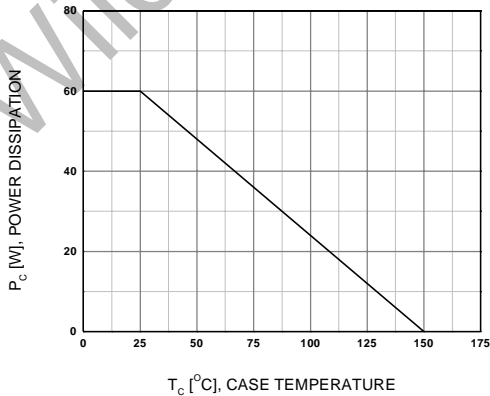


Figure 11. Power Derating

**Package Dimension**

TO-264

Unit: mm

