

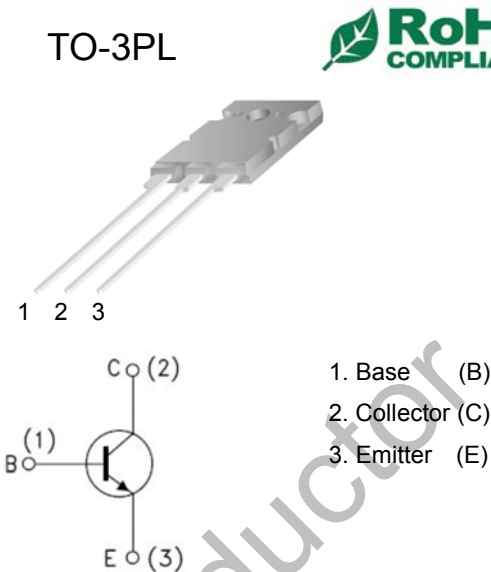
## WGC5200

Audio Power Amplifier

**Features:**

- High Current Capability:  $I_C=15A$
- High Power Dissipation
- Extended Safe Operating Area.
- PNP Transistor
- Complement to WGA1943
- 100% Avalanche Tested

TO-3PL



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

### Absolute Maximum Ratings\* ( $T_C=25^\circ C$ Unless otherwise noted)

Symbol	PARAMETER	Value	Unit
$BV_{CBO}$	Collector-Base Voltage	230	V
$BV_{CEO}$	Collector-Emitter Voltage	230	V
$BVEBO$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	15	A
$I_B$	Base Current	1.5	A
$P_D$	Total Device Dissipation( $T_C=25^\circ C$ )	150	W
	Derate above $25^\circ C$	1.04	W/ $^\circ C$
$R_{\theta JC}$	Thermal Resistance, Junction to Case (Max.)	0.83	$^\circ C/W$
$T_j, T_{stg}$	Junction and Storage Temperature	-40~+150	$^\circ C$

### Electrical Characteristics\* ( $T_C=25^\circ C$ unless otherwise noted)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C=5mA, I_E=0$	230	-	-	V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10mA, R_{BE}=\infty$	230	-	-	V
$BVEBO$	Emitter-Base Breakdown Voltage	$I_E=5mA, I_C=0$	5	-	-	V
$I_{CBO}$	Collector Cut-off Current	$V_{CB}=230V, I_E=0$	-	-	5	$\mu A$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB}=5V, I_C=0$	-	-	5	$\mu A$
$h_{FE(1)}$	DC Current Gain	$V_{CE}=5V, I_C=1A$	55	-	160	-
$h_{FE(2)}$	DC Current Gain	$V_{CE}=5V, I_C=7A$	35	60	-	-
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=8A, I_B=0.8A$	-	0.4	3	V
$V_{EB(sat)}$	Base-Emitter On Voltage	$V_{CE}=5V, I_C=7A$	-	1.0	1.5	V
fT	Current Gain Bandwidth Product	$V_{CE}=5V, I_C=1A$	-	30	-	MHz
$C_{OB}$	Output Capacitance	$V_{CE}=10V, f=1MHz$	-	200	-	pF

### Classification Of $h_{FE}$

Classification	R	O
$h_{FE(1)}$	55-110	80-160

\* Pulse Test: Pulse Width=20 $\mu s$ , Duty Cycle $\leq 2\%$

Typical Characteristics

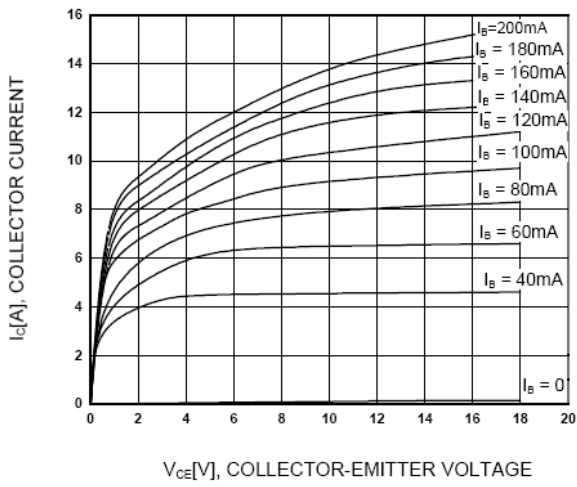


Figure 1. Static Characteristic

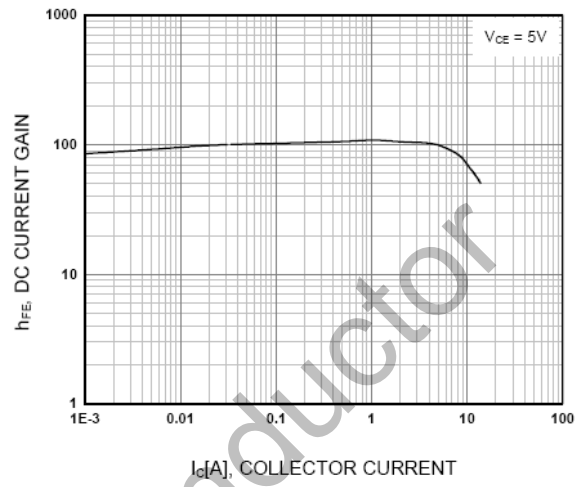


Figure 2. DC current Gain

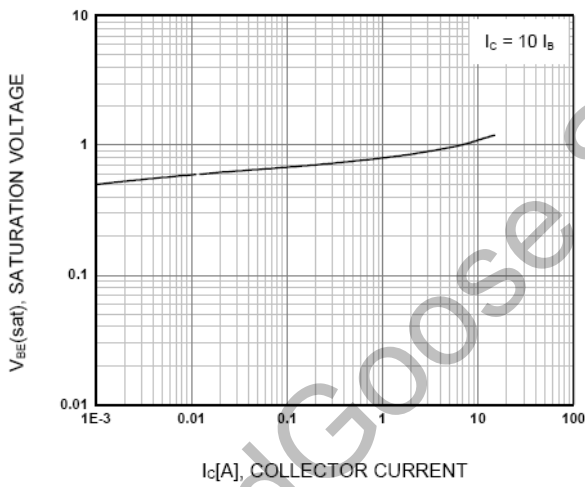


Figure 3. Base-Emitter Saturation Voltage

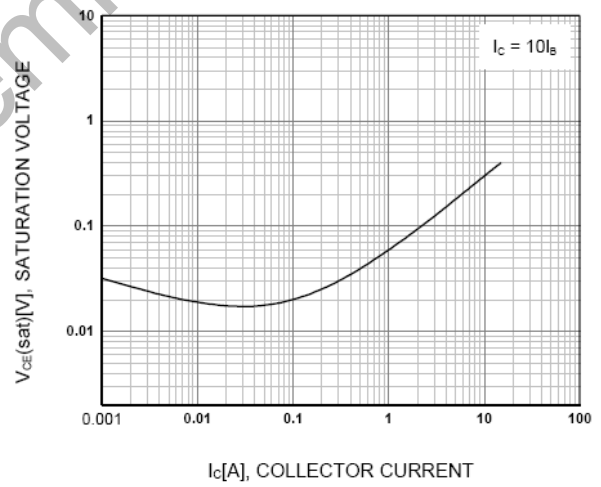


Figure 4. Collector-Emitter Saturation Voltage