
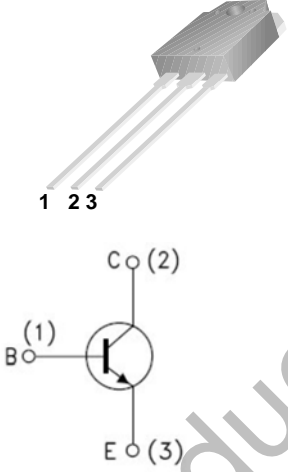


## WGC5198

**Features:**

- High Current Capability:  $I_C=10A$
- High Power Dissipation
- Extended Safe Operating Area.
- NPN Transistor
- 100% Avalanche Tested

TO-3P 



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

**Absolute Maximum Ratings\*** ( $T_a=25^\circ C$  unless otherwise noted)

Symbol	Parameter	Value	Unit
$BV_{CBO}$	Collector-Base Voltage	140	V
$BV_{CEO}$	Collector-Emitter Voltage	140	
$BVEBO$	Emitter-Base Voltage	5	
$I_C$	Collector Current	10	A
$I_B$	Base Current	1.0	
$P_D$	Total Device Dissipation( $T_j=25^\circ C$ )	100	W
	Derate above $25^\circ C$	1.04	
$R_{\theta JC}$	Thermal Resistance, Junction to Case	0.83	$^\circ C/W$
$T_j, T_{stg}$	Junction and Storage Temperature	-40~+150	$^\circ C$

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

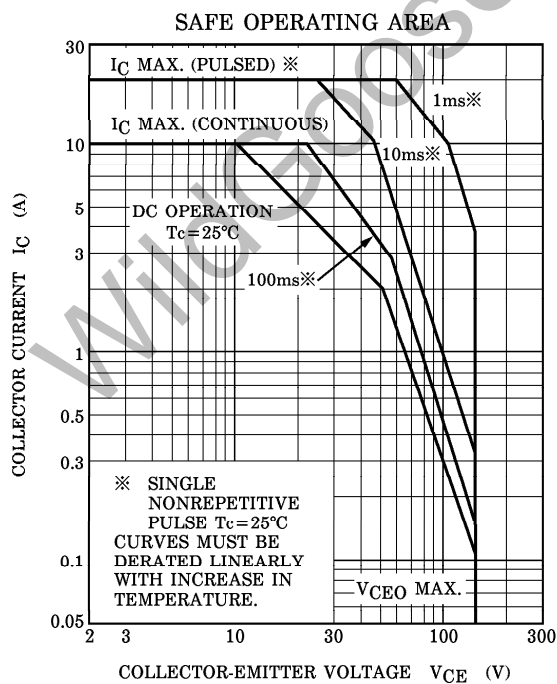
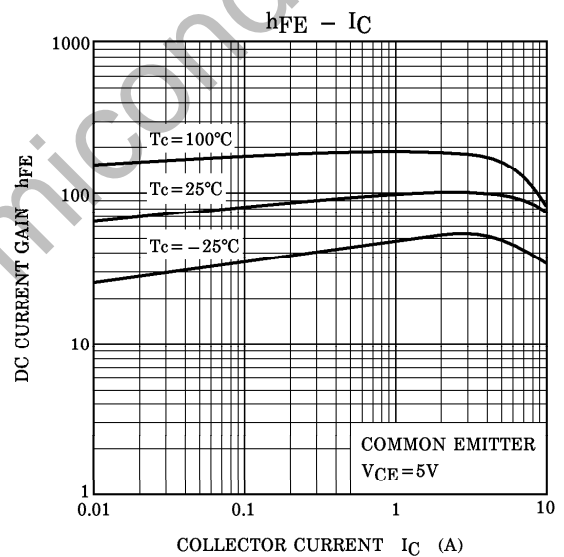
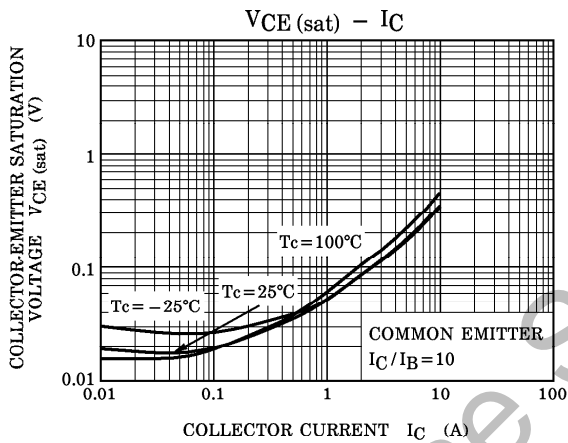
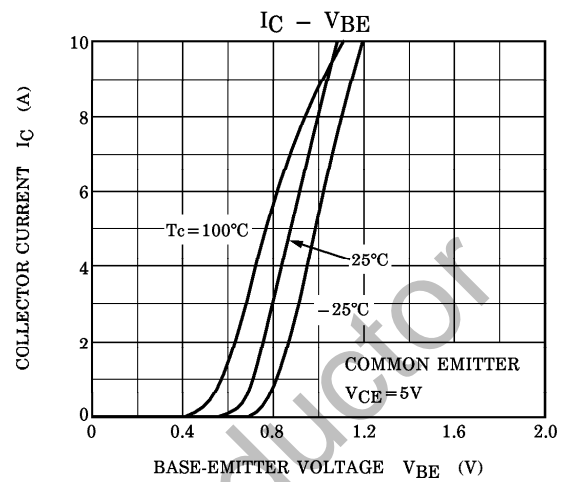
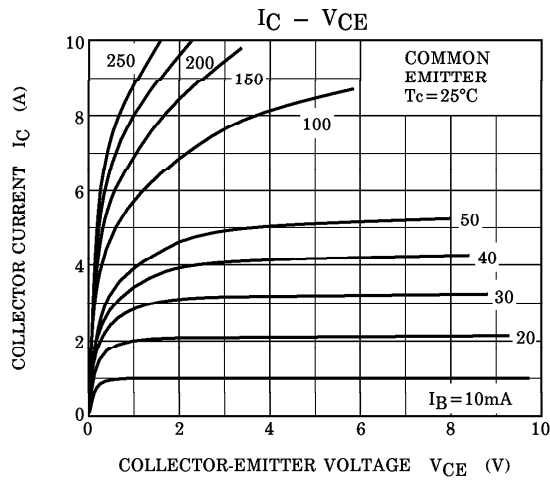
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C=5mA, I_E=0$	140	-	-	V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10mA, R_{BE}=\infty$	140	-	-	
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E=5mA, I_C=0$	5	-	-	
$I_{CBO}$	Collector Cut-off Current	$V_{CB}=140V, I_E=0$	-	-	5	$\mu A$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB}=5V, I_C=0$	-	-	5	
$h_{FE(1)}$	DC Current Gain	$V_{CE}=5V, I_C=1A$	55	-	160	-
$h_{FE(2)}$	DC Current Gain	$V_{CE}=5V, I_C=5A$	35	80	-	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=7A, I_B=0.7A$	-	0.8	2	V
$V_{EB(sat)}$	Base-Emitter On Voltage	$V_{CE}=5V, I_C=5A$	-	1.0	1.5	
fT	Current Gain Bandwidth Product	$V_{CE}=5V, I_C=1A$	-	30	-	MHz
$C_{OB}$	Output Capacitance	$V_{CE}=10V, f=1MHz$	-	170	-	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



**Package Dimension**

TO-3P

Unit: mm

