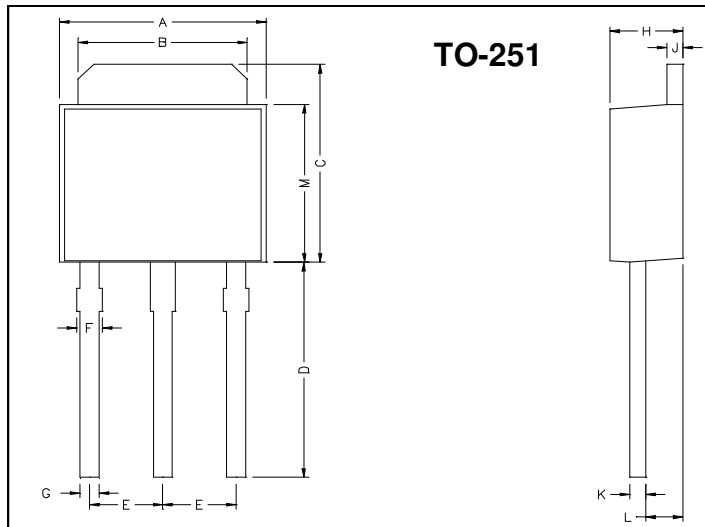
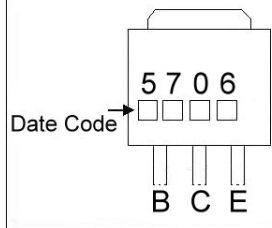


GI5706**NPN EPITAXIAL PLANAR SILICON TRANSISTOR****Description**

The GI5706 is designed high current switching applications.

Features

- *Large current capacitance
- *Low collector-to-emitter saturation voltage
- *High-speed switching
- *High allowable power dissipation

Package Dimensions**Marking :**

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.40	6.80	G	0.50	0.70
B	5.20	5.50	H	2.20	2.40
C	6.80	7.20	J	0.45	0.55
D	7.20	7.80	K	0.45	0.60
E	2.30 REF.		L	0.90	1.50
F	0.60	0.90	M	5.40	5.80

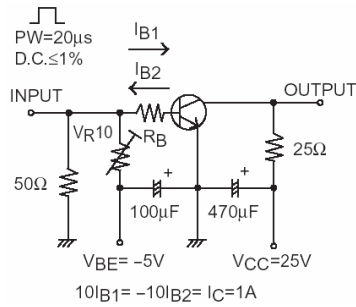
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$, unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CB0}	80	V
Collector to Emitter Voltage	V_{CES}	80	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current	I_C	5	A
Collector Current(Pulse)	I_{CP}	7.5	A
Base Current	I_B	1.2	A
Junction Temperature	T_j	+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$
Total Power Dissipation	P_D	0.8	W
	$P_D(T_C=25^\circ\text{C})$	15	W

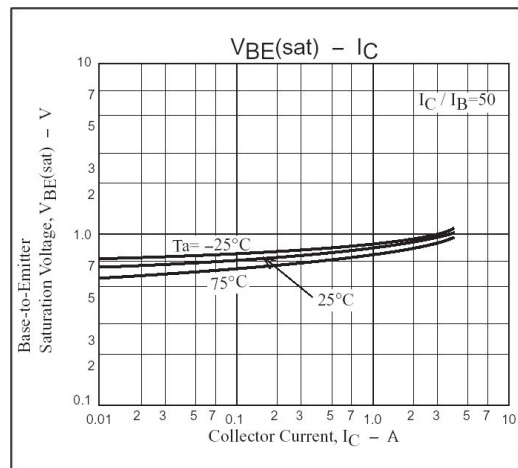
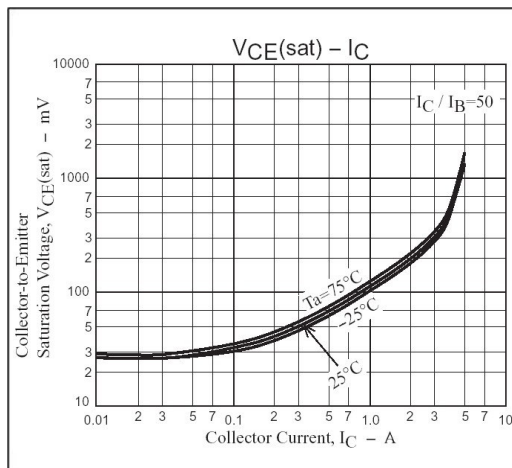
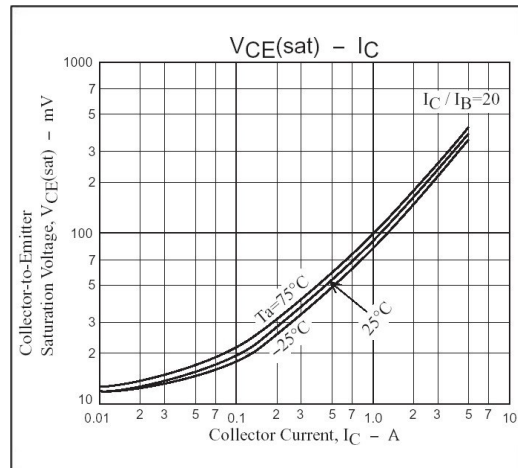
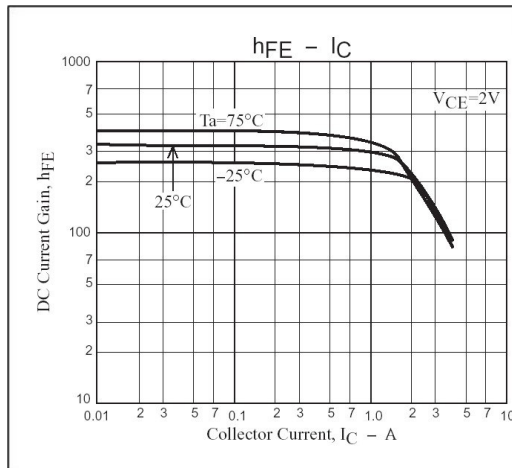
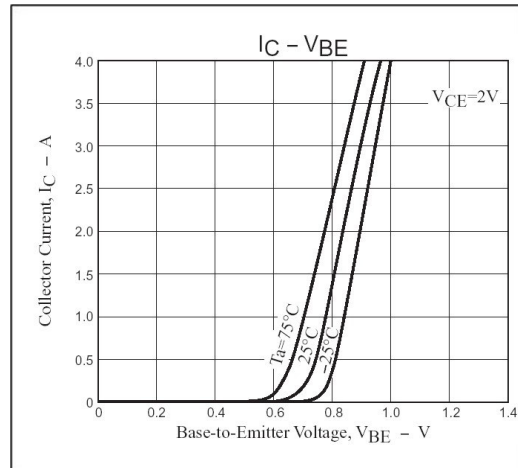
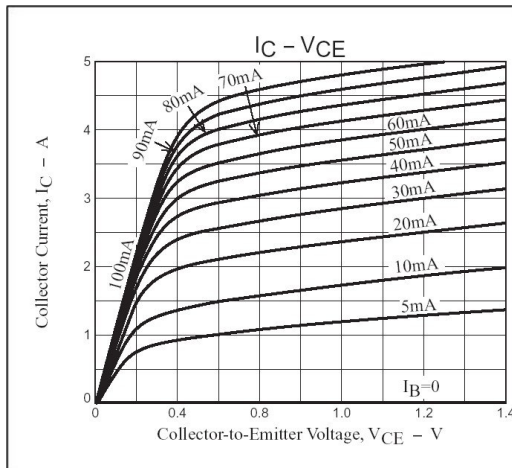
Electrical Characteristics (Rating at $T_a=25^\circ\text{C}$)

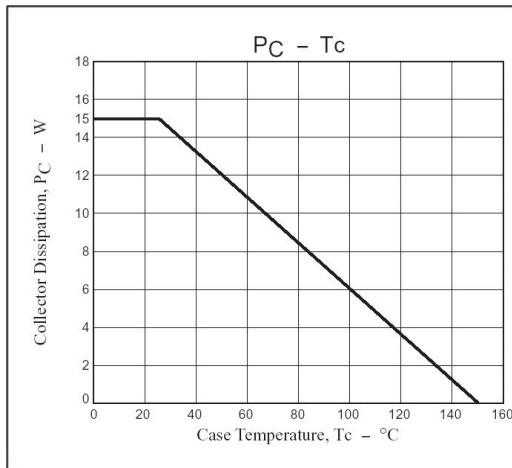
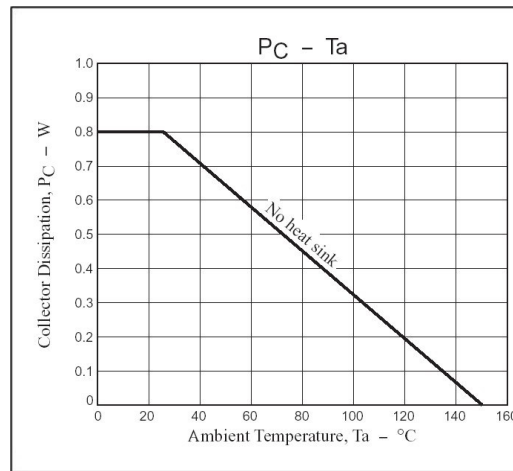
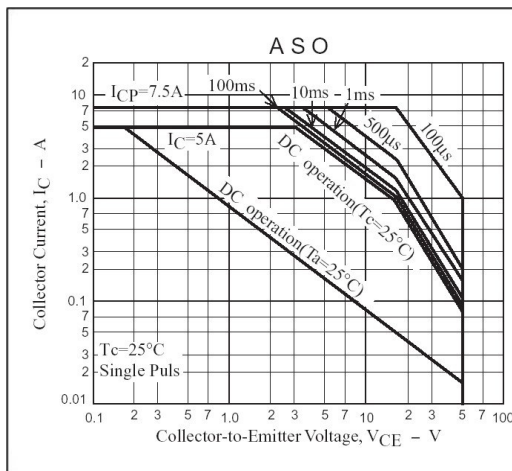
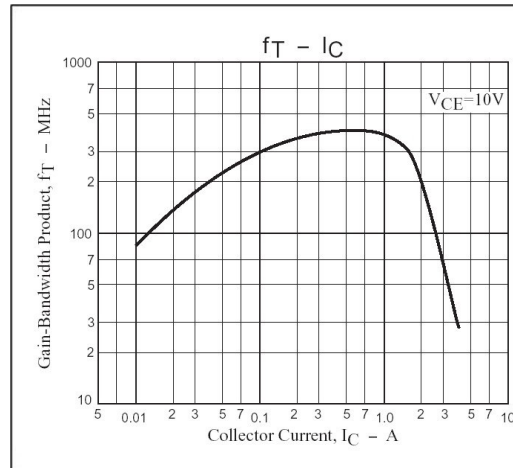
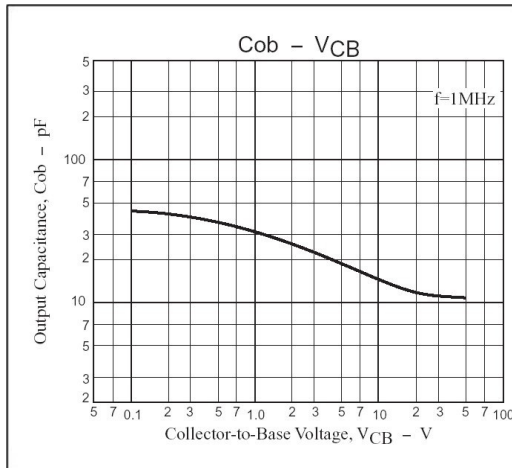
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CB0}	80	-	-	V	$I_C=10\mu\text{A}$, $I_E=0$
BV_{CES}	80	-	-	V	$I_C=100\mu\text{A}$, $R_{BE}=0$
BV_{CEO}	50	-	-	V	$I_C=1\text{mA}$, $R_{BE}=\infty$
BV_{EBO}	6	-	-	V	$I_E=10\mu\text{A}$, $I_C=0$
I_{CBO}	-	-	1	μA	$V_{CB}=40\text{V}$, $I_E=0$
I_{EBO}	-	-	1	μA	$V_{EB}=4\text{V}$, $I_C=0$
$*V_{CE(sat)1}$	-	-	135	mV	$I_C=1\text{A}$, $I_B=50\text{mA}$
$*V_{CE(sat)2}$	-	-	240	mV	$I_C=2\text{A}$, $I_B=100\text{mA}$
$*V_{BE(sat)}$	-	-	1.2	V	$I_C=2\text{A}$, $I_B=100\text{mA}$
$*h_{FE}$	200	-	560		$V_{CE}=2\text{V}$, $I_C=500\text{mA}$
f_T	-	400	-	MHz	$V_{CE}=10\text{V}$, $I_C=500\text{mA}$
Cob	-	15	-	pF	$V_{CB}=10\text{V}$, $f=1\text{MHz}$
t_{on} (Turn-On Time)	-	35	-	ns	See specified test circuit.
t_{stg} (Storage Time)	-	300	-	ns	See specified test circuit.
t_f (Fall Time)	-	20	-	ns	See specified test circuit.

Switching Time Test Circuit



Characteristics Curve





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