

GI5706

NPN EPITAXIAL PLANAR SILICON TRANSISTOR

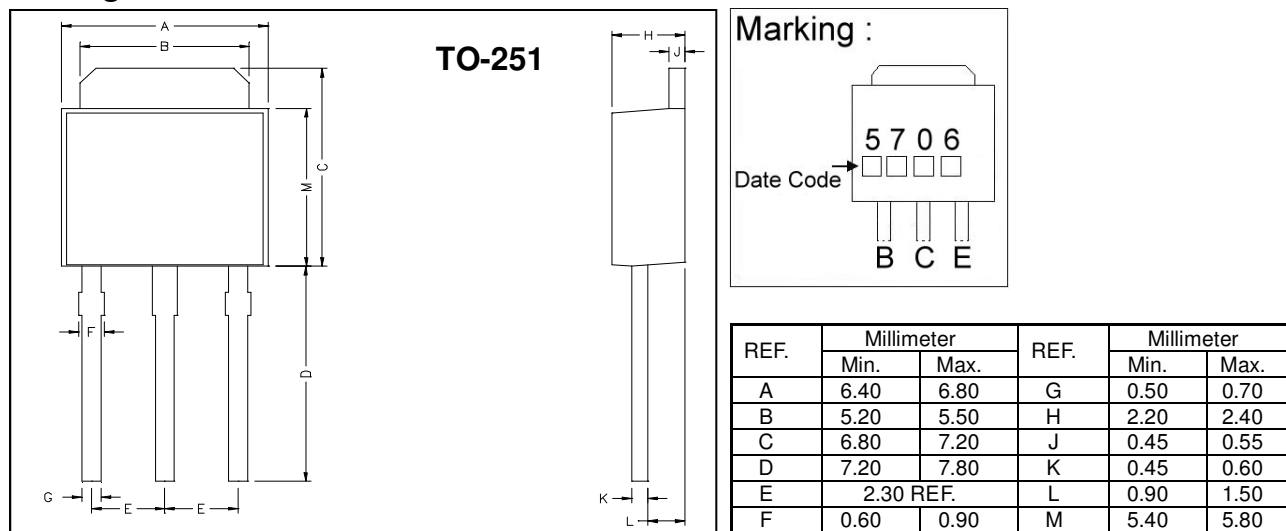
Description

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



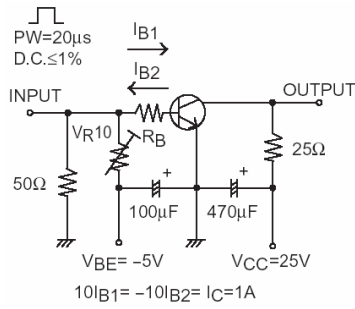
Absolute Maximum Ratings (Ta = 25°C, unless otherwise specified)

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	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C
Total Power Dissipation	P _D	0.8	W
	P _D (T _C =25°C)	15	W

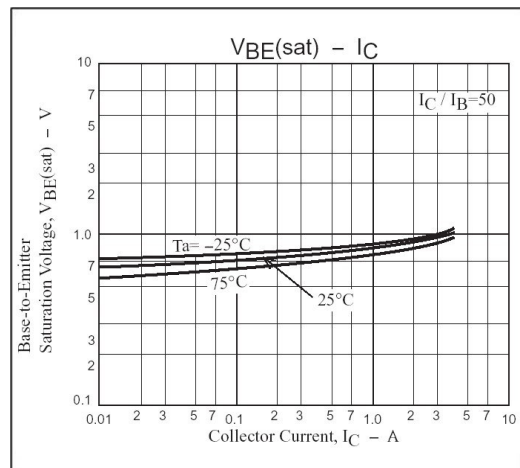
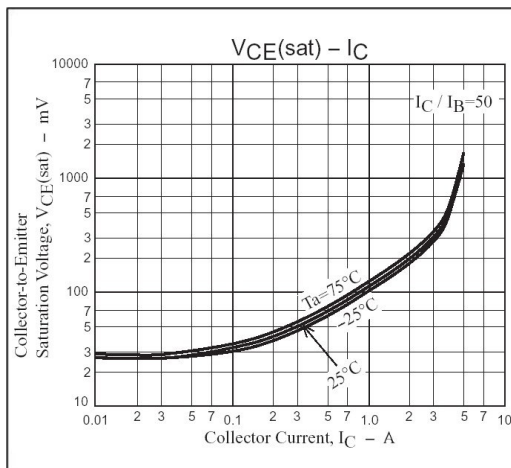
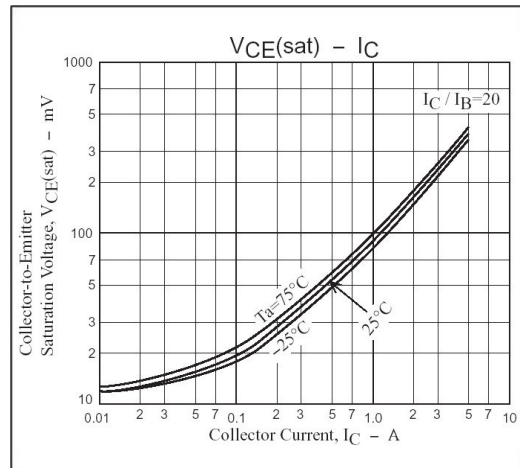
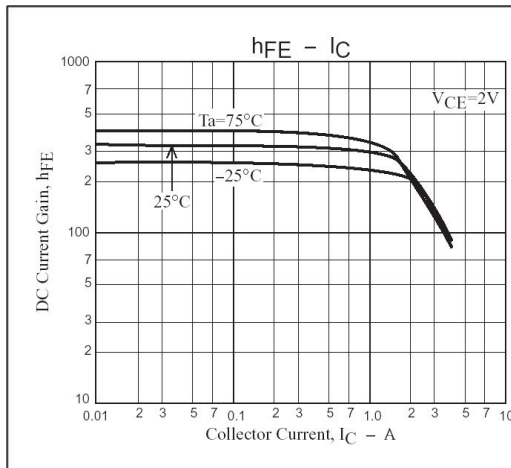
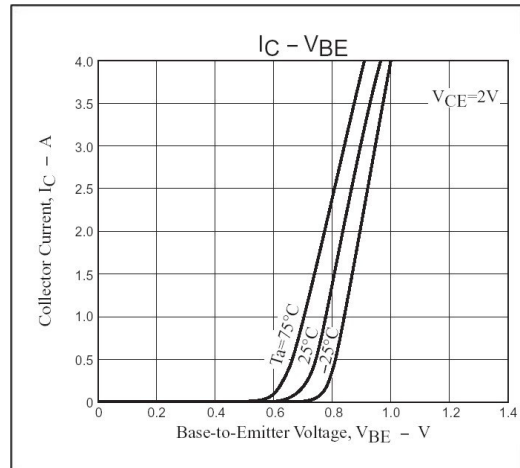
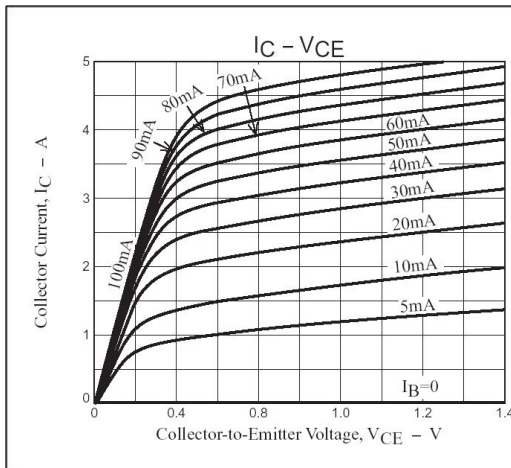
Electrical Characteristics (Rating at Ta=25°C)

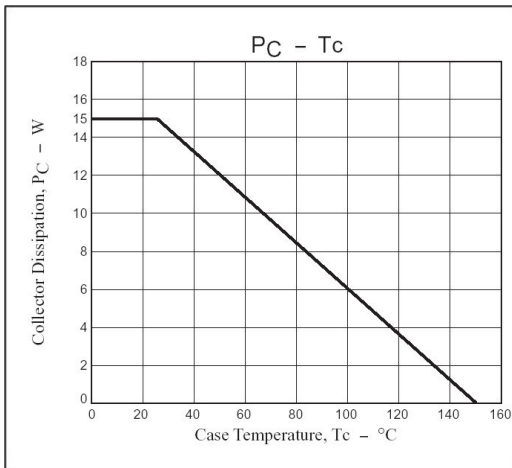
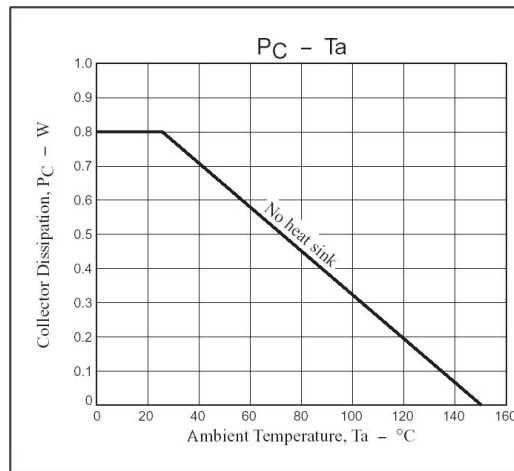
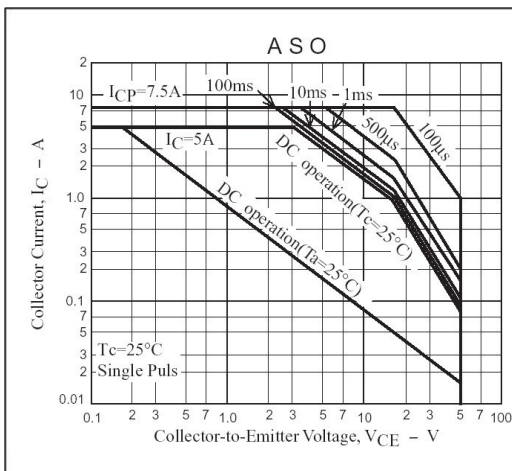
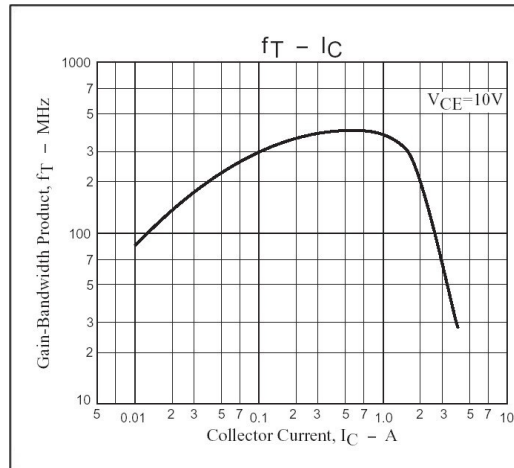
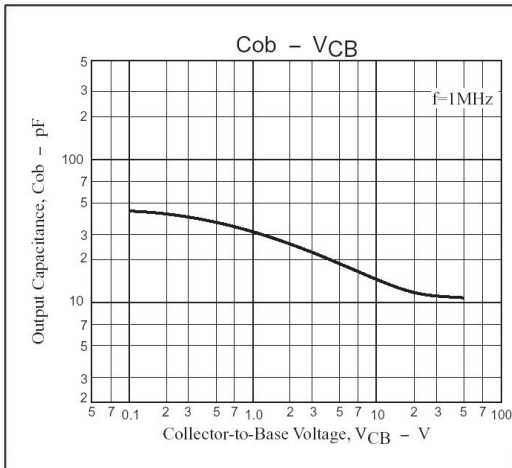
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V _{CB0}	80	-	-	V	I _C =10uA, I _E =0
V _{CES}	80	-	-	V	I _C =100uA, R _{BE} =0
V _{CEO}	50	-	-	V	I _C =1mA, R _{BE} =∞
V _{EBO}	6	-	-	V	I _E =10uA, I _C =0
I _{CB0}	-	-	1	uA	V _{CB} =40V, I _E =0
I _{EBO}	-	-	1	uA	V _{EB} =4V, I _C =0
*V _{CE(sat)1}	-	-	135	mV	I _C =1A, I _B =50mA
*V _{CE(sat)2}	-	-	240	mV	I _C =2A, I _B =100mA
*V _{BE(sat)}	-	-	1.2	V	I _C =2A, I _B =100mA
*h _{FE}	200	-	560		V _{CE} =2V, I _C =500mA
f _T	-	400	-	MHz	V _{CE} =10V, I _C =500mA
C _{ob}	-	15	-	pF	V _{CB} =10V, f=1MHz
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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