

GI5706

NPN EPITAXIAL PLANAR SILICON TRANSISTOR

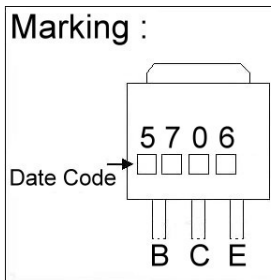
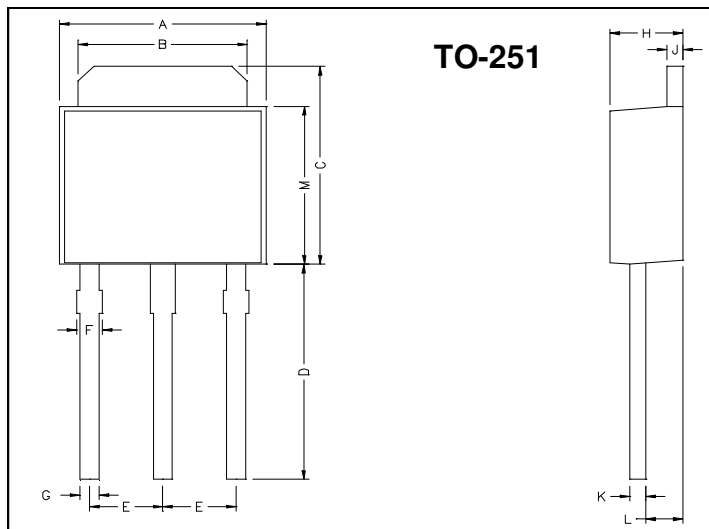
Description

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



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

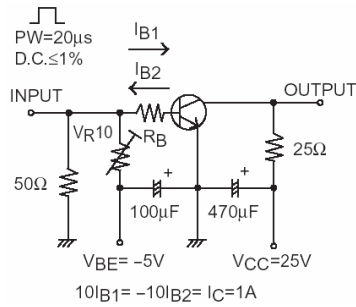
Absolute Maximum Ratings (Ta = 25°C, unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	VCBO	80	V
Collector to Emitter Voltage	VCES	80	V
Collector to Emitter Voltage	VCEO	50	V
Emitter to Base Voltage	VEBO	6	V
Collector Current	Ic	5	A
Collector Current(Pulse)	ICP	7.5	A
Base Current	IB	1.2	A
Junction Temperature	Tj	+150	°C
Storage Temperature	TSTG	-55 ~ +150	°C
Total Power Dissipation	PD	0.8	W
	PD(Tc=25°C)	15	W

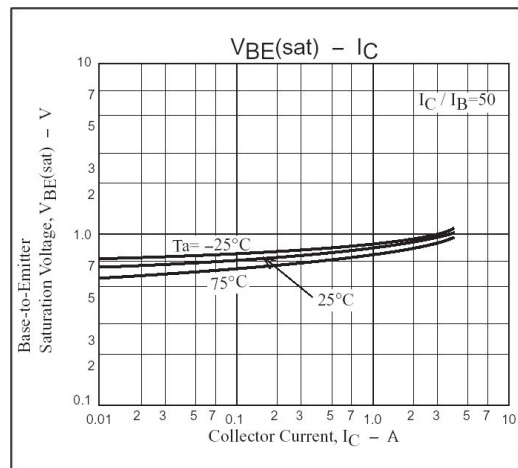
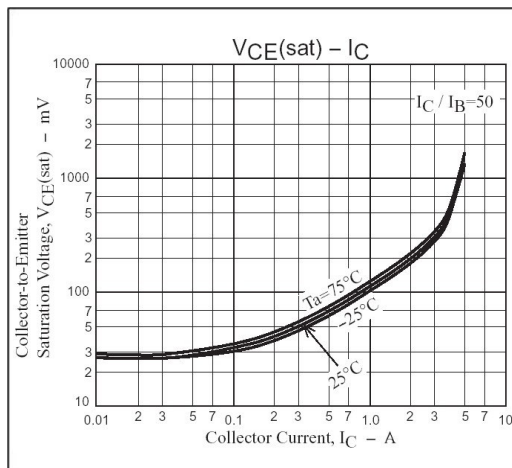
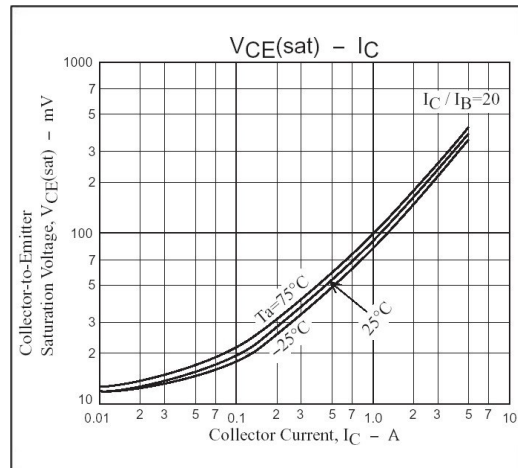
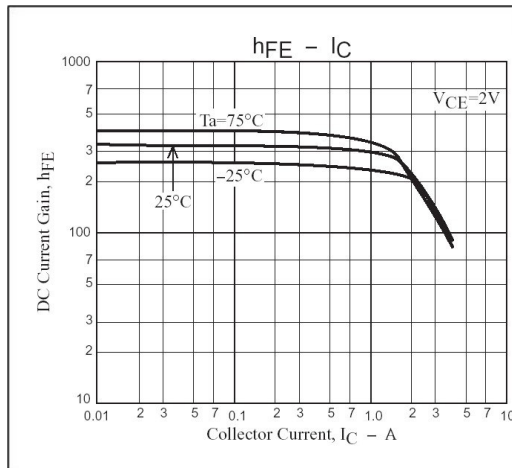
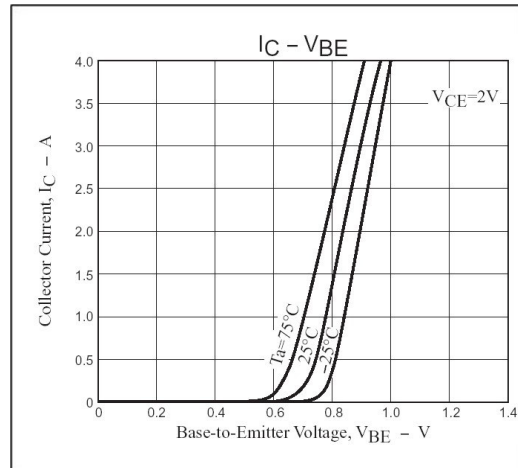
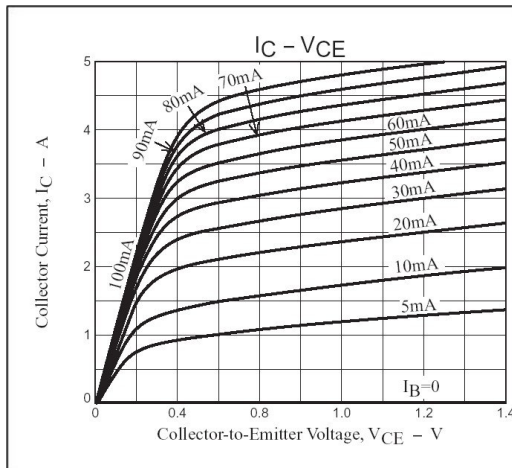
Electrical Characteristics (Rating at Ta=25°C)

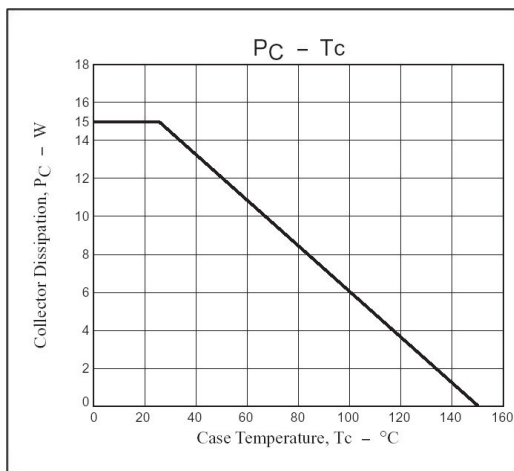
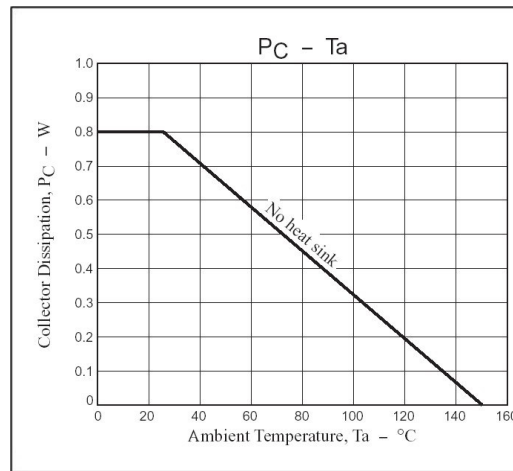
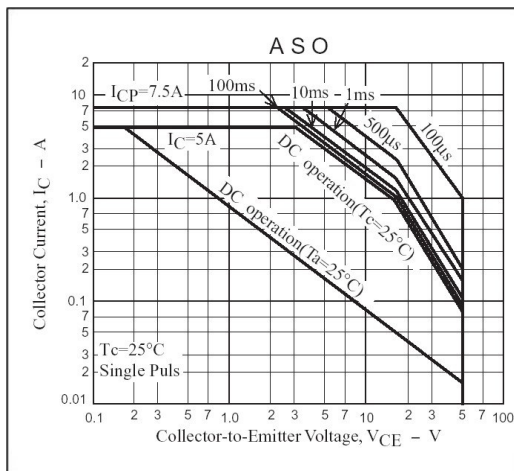
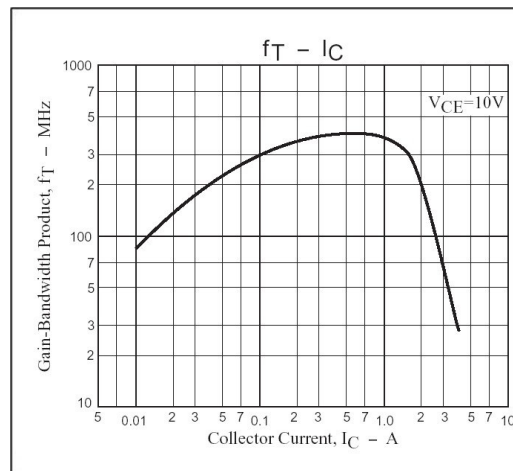
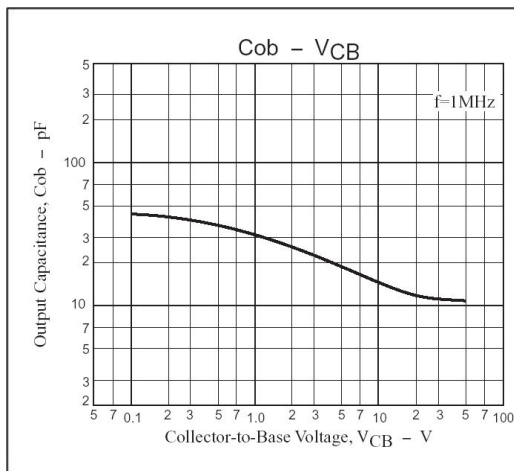
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	80	-	-	V	IC=10uA, IE=0
BVCES	80	-	-	V	IC=100uA, RBE=0
BVCEO	50	-	-	V	IC=1mA, RBE=∞
BVEBO	6	-	-	V	IE=10uA, IC=0
ICBO	-	-	1	uA	VCB=40V, IE=0
IEBO	-	-	1	uA	VEB=4V, IC=0
*VCE(sat)1	-	-	135	mV	IC=1A, IB=50mA
*VCE(sat)2	-	-	240	mV	IC=2A, IB=100mA
*VBE(sat)	-	-	1.2	V	IC=2A, IB=100mA
*hFE	200	-	560		VCE=2V, IC=500mA
fT	-	400	-	MHz	VCE=10V, IC=500mA
Cob	-	15	-	pF	VCB=10V, f=1MHz
ton (Turn-On Time)	-	35	-	ns	See specified test circuit.
tstg (Storage Time)	-	300	-	ns	See specified test circuit.
tf (Fall Time)	-	20	-	ns	See specified test circuit.

Switching Time Test Circuit



Characteristics Curve





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