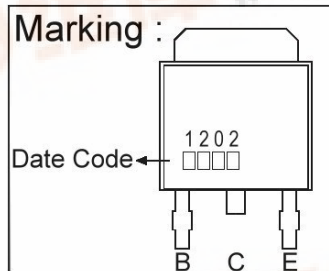
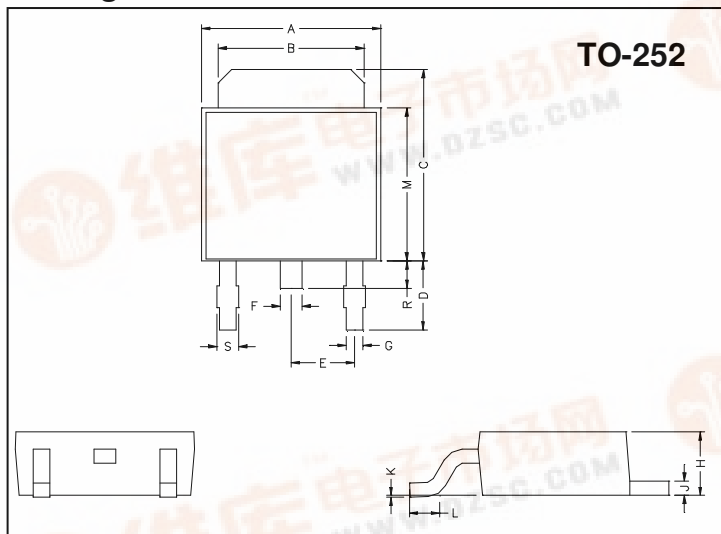


GTM**CORPORATION**ISSUED DATE :2005/06/07
REVISED DATE :**GJ1202****PNP EPITAXIAL PLANAR SILICON TRANSISTOR****Description**

The GJ1202 is designed for voltage regulators, relay drivers, lamp drivers and electrical equipment applications.

Features

- *Large current capacitance and wide ASO
- *Low collector-to-emitter saturation voltage
- *Fast switching speed

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	2.40	3.00	K	0	0.15
E	2.30 REF.		L	0.90	1.50
F	0.70	0.90	M	5.40	5.80
S	0.60	0.90	R	0.80	1.20

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

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CB0}	-60	V
Collector to Emitter Voltage	V_{CE0}	-50	V
Emitter to Base Voltage	V_{EB0}	-6	V
Collector Current	I_C	-3	A
Collector Current(Pulse)	I_{CP}	-6	A
Junction Temperature	T_j	+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$
Total Power Dissipation	P_D	1	W
	$P_D(T_C=25^\circ\text{C})$	15	W

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

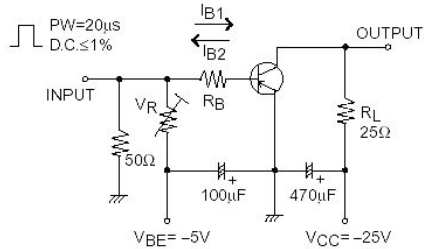
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V_{CB0}	-60	-	-	V	$I_C=-10\mu\text{A}$, $I_E=0$
V_{CE0}	-50	-	-	V	$I_C=-1\text{mA}$, $R_{BE}=\infty$
V_{EB0}	-6	-	-	V	$I_E=-10\mu\text{A}$, $I_C=0$
I_{CB0}	-	-	-1	μA	$V_{CB}=-40\text{V}$, $I_E=0$
I_{EB0}	-	-	-1	μA	$V_{EB}=-4\text{V}$, $I_C=0$
* $V_{CE(sat)1}$	-	-0.35	-0.7	V	$I_C=-2\text{A}$, $I_B=-100\text{mA}$
* $V_{BE(sat)}$	-	-0.94	-1.2	V	$I_C=-2\text{A}$, $I_B=-100\text{mA}$
* h_{FE1}	100	-	560		$V_{CE}=-2\text{V}$, $I_C=-100\text{mA}$
* h_{FE2}	35	-	-		$V_{CE}=-2\text{V}$, $I_C=-3\text{A}$
f_T	-	150	-	MHz	$V_{CE}=-10\text{V}$, $I_C=-50\text{mA}$
C_{ob}	-	39	-	pF	$V_{CB}=-10\text{V}$, $f=1\text{MHz}$
t_{on} (Turn-On Time)	-	70	-	ns	See specified test circuit.
t_{stg} (Storage Time)	-	450	-	ns	See specified test circuit.
t_f (Fall Time)	-	35	-	ns	See specified test circuit.

* Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$ **Classification Of h_{FE1}**

Rank	R	S	T	U
Range	100 ~ 200	140 ~ 280	200 ~ 400	280 ~ 560

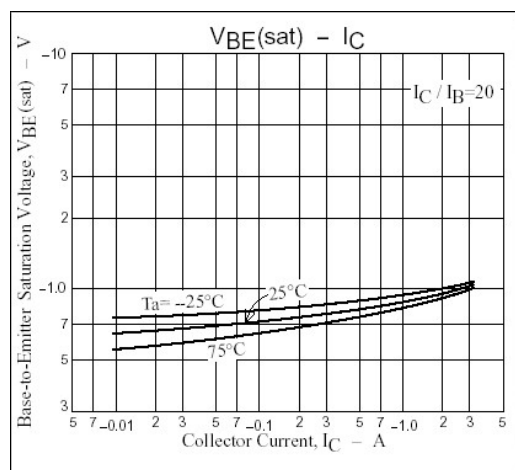
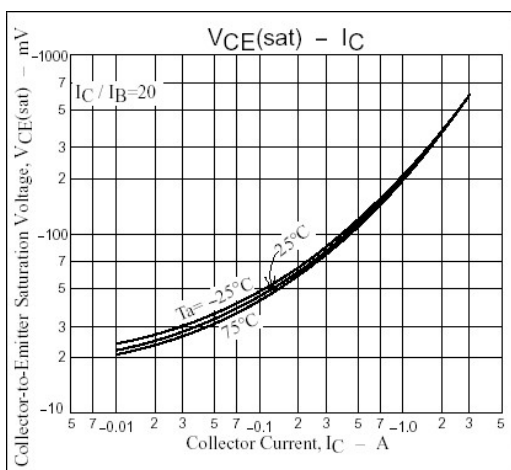
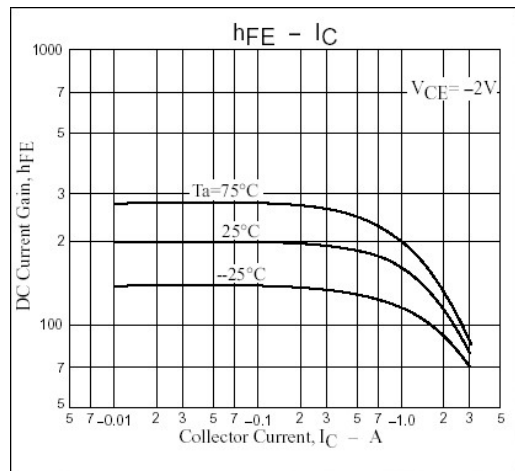
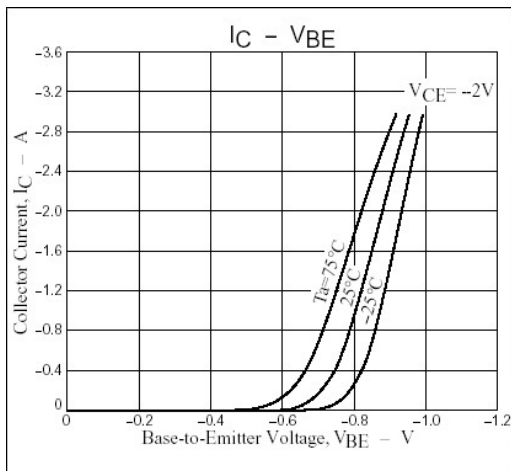
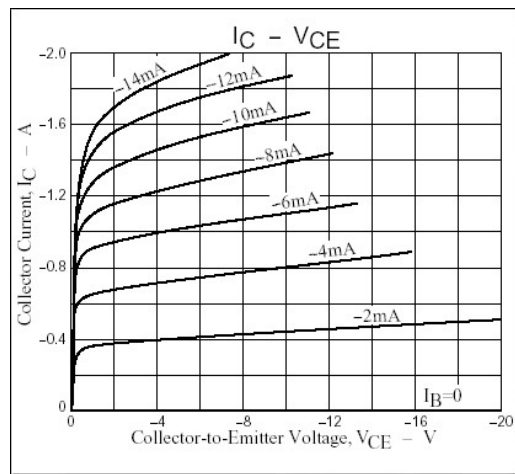
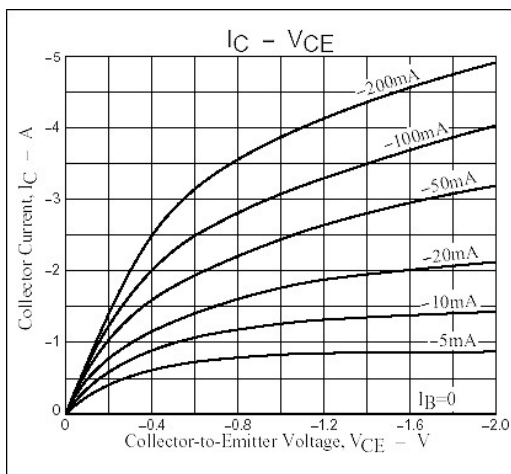


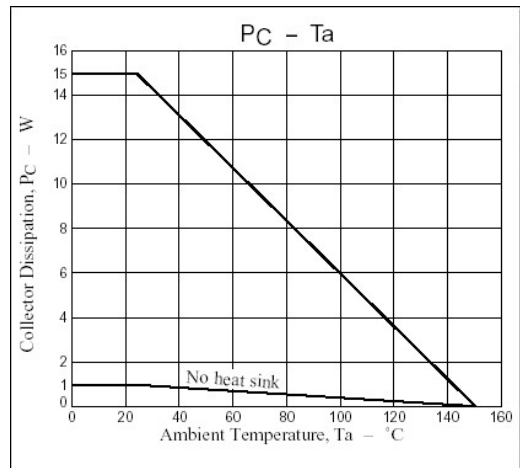
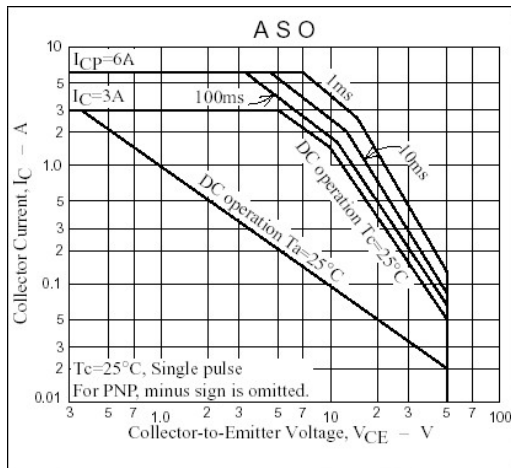
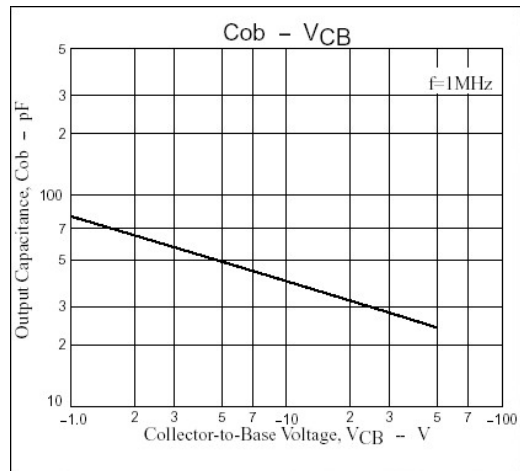
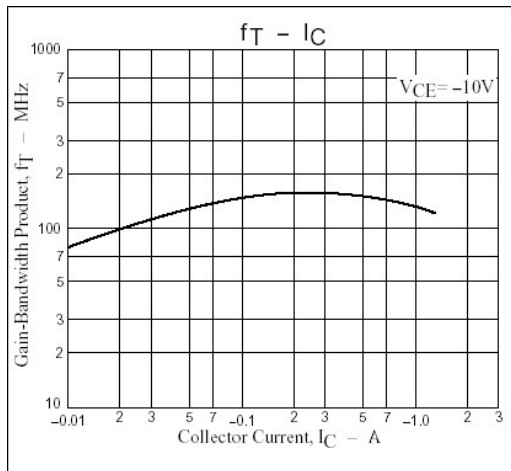
Switching Time Test Circuit



$$I_C = 10I_{B1} = -10I_{B2} = 1A$$

Characteristics Curve





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Head Office And Factory:

- Taiwan:** No. 17-1 Tatung Rd. Fu Kou Hsin-Chu Industrial Park, Hsin-Chu, Taiwan, R. O. C.
TEL : 886-3-597-7061 FAX : 886-3-597-9220, 597-0785
- China:** (201203) No.255, Jang-Jiang Tsai-Lueng RD. , Pu-Dung-Hsin District, Shang-Hai City, China
TEL : 86-21-5895-7671 ~ 4 FAX : 86-21-38950165