



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

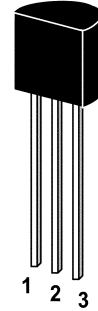
ST 2N2222 / 2N2222A

NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into one group according to its DC current gain. As complementary type the PNP transistor ST 2N2907 and ST 2N2907A are recommended.

On special request, these transistors can be manufactured in different pin configurations.

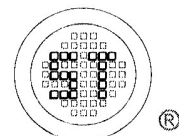


1. Emitter 2. Base 3. Collector

TO-92 Plastic Package
Weight approx. 0.19g

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

	Symbol	Value		Unit
		ST 2N2222	ST 2N2222A	
Collector Base Voltage	V_{CBO}	60	75	V
Collector Emitter Voltage	V_{CEO}	30	40	V
Emitter Base Voltage	V_{EBO}	5	6	V
Collector Current	I_C	600		mA
Power Dissipation	P_{tot}	625		mW
Junction Temperature	T_j	150		$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +150		$^\circ\text{C}$



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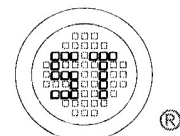
Dated : 05/10/2005

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ST 2N2222 / 2N2222A**Characteristics at T_{amb}=25 °C**

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at I _C =0.1mA, V _{CE} =10V	h _{FE}	35	-	-	-
at I _C =1mA, V _{CE} =10V	h _{FE}	50	-	-	-
at I _C =10mA, V _{CE} =10V	h _{FE}	75	-	-	-
at I _C =150mA, V _{CE} =10V	h _{FE}	100	-	300	-
at I _C =500mA, V _{CE} =10V	h _{FE}	30	-	-	-
	ST 2N2222				
	ST 2N2222A	40	-	-	-
Collector Cutoff Current					
at V _{CB} =50V	I _{CBO}	-	-	0.01	μA
V _{CB} =60V	I _{CBO}	-	-	0.01	μA
Collector Base Breakdown Voltage					
at I _C =10μA	V _{(BR)CBO}	60	-	-	V
	V _{(BR)CBO}	75	-	-	V
Collector Emitter Breakdown Voltage					
at I _C =10mA	V _{(BR)CEO}	30	-	-	V
	V _{(BR)CEO}	40	-	-	V
Emitter Base Breakdown Voltage					
at I _E =10μA	V _{(BR)EBO}	5	-	-	V
	V _{(BR)EBO}	6	-	-	V
Collector Saturation Voltage					
at I _C =150mA, I _B =15mA	V _{CE(sat)}	-	-	0.4	V
	V _{CE(sat)}	-	-	0.3	V
at I _C =500mA, I _B =50mA	V _{CE(sat)}	-	-	1.6	V
	V _{CE(sat)}	-	-	1	V
Base Saturation Voltage					
at I _C =150mA, I _B =15mA	V _{BE(sat)}	-	-	1.3	V
	V _{BE(sat)}	0.6	-	1.2	V
at I _C =500mA, I _B =50mA	V _{BE(sat)}	-	-	2.6	V
	V _{BE(sat)}	-	-	2.0	V
Gain Bandwidth Product					
at I _C =20mA, V _{CE} =20V, f=100MHz	f _T	250	-	-	MHz
Collector Output Capacitance					
at V _{CB} =10V, f=1MHz	C _{ob}	-	-	8	pF
Input Capacitance					
at V _{CB} =0.5V, f=1MHz	C _{ib}	-	-	30	pF

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Figure 1. DC Current Gain

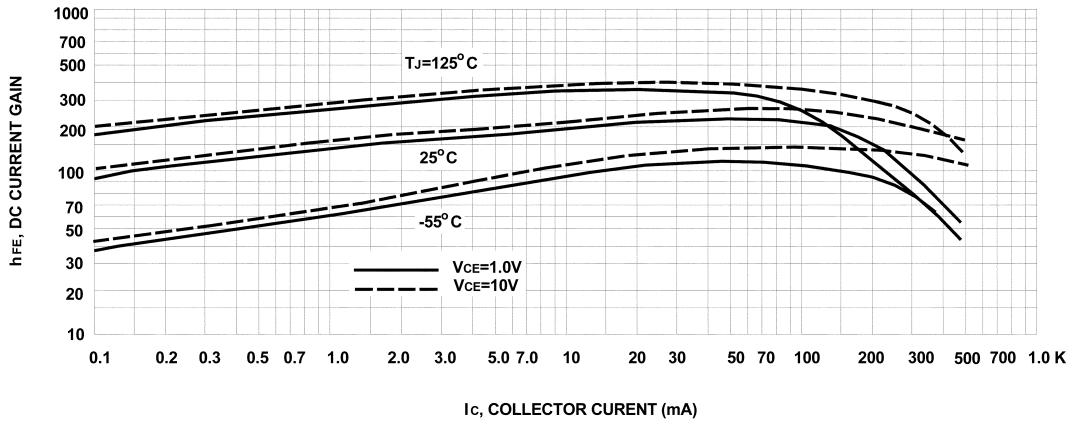
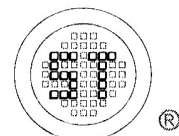
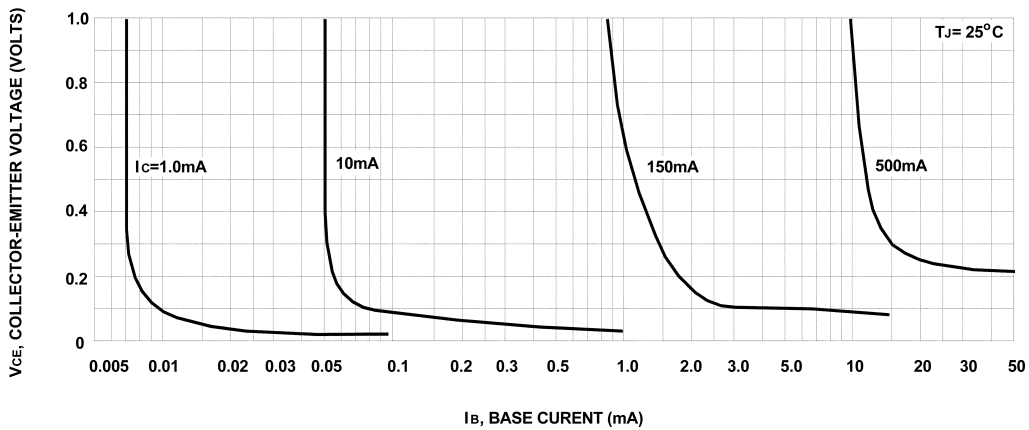


Figure 2. Collector Saturation Region



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Figure 3. Capacitances

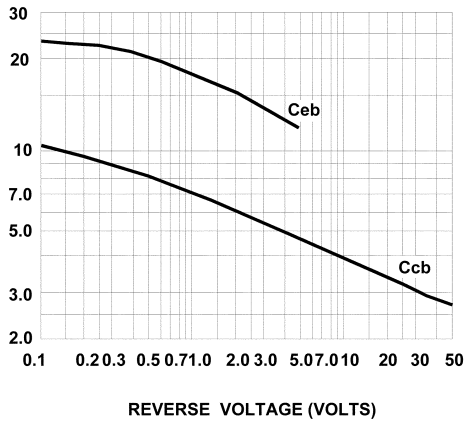
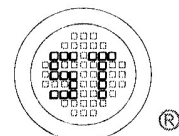
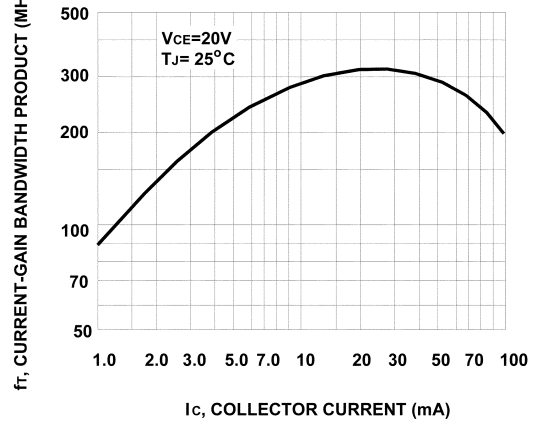


Figure 4. Current-Gain Bandwidth Product



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