

# GSTS882

## NPN Plastic-Encapsulate Transistor


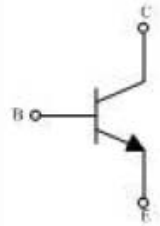
### Product Description

This device is designed as a general purpose amplifier and switch.

### Features

- Collector-Emitter Voltage : 30V
- Collector Current : 3.0A
- Lead(Pb)-Free

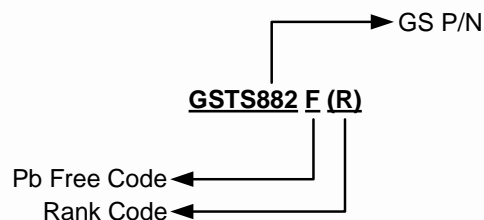
### Packages & Pin Assignments

TO-92	
	
	
Pin	Description
1	Emitter
2	Collector
3	Base

### Marking Information

P/N	Package	Rank	Part Marking
GSTS882F	TO-92	(R) / (O) / (Y) / (GR)	D882

### Ordering Information



Part Number	Package	Quantity
GSTS882F(R or O or Y or GR)	TO-92	1000 PCS

## Absolute Maximum Ratings

$T_A=25^\circ\text{C}$

Symbol	Conditions	Typical	Unit
$V_{CEO}$	Collector-Emitter Voltage	30	V
$V_{CBO}$	Collector-Base Voltage	40	V
$V_{EBO}$	Emitter-Base Voltage	6.0	V
$I_C$	Collector Current-Continuous	3.0	A
$P_D$	Total Device Dissipation $T_A=25^\circ\text{C}$	0.625	W
$T_J$	Junction Temperature Range	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to +150	$^\circ\text{C}$

## Electrical Characteristics

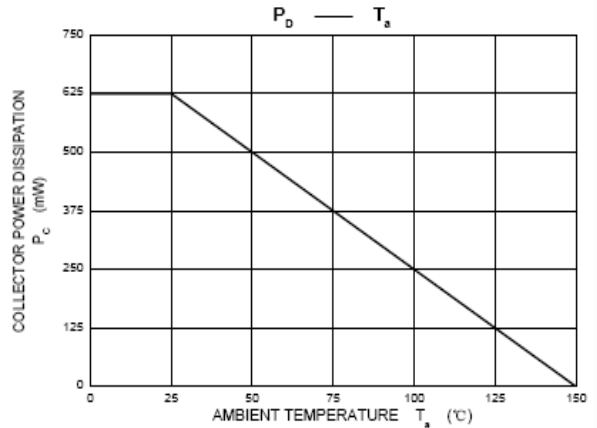
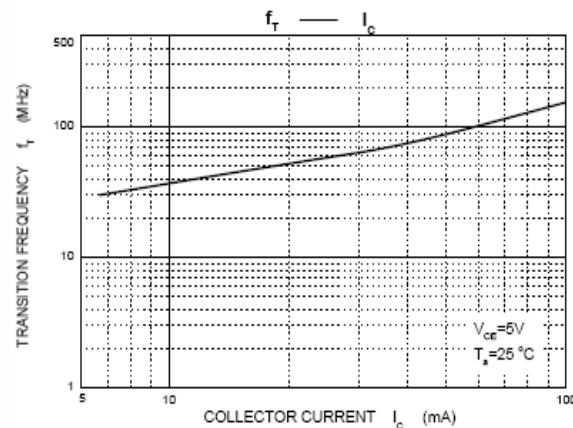
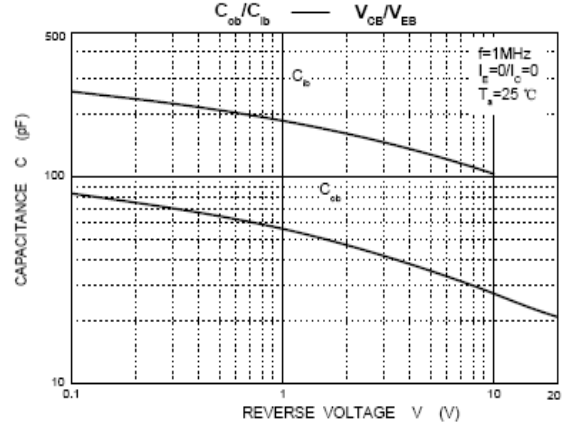
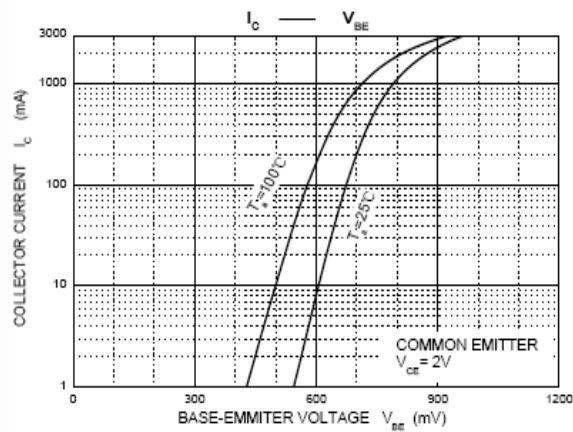
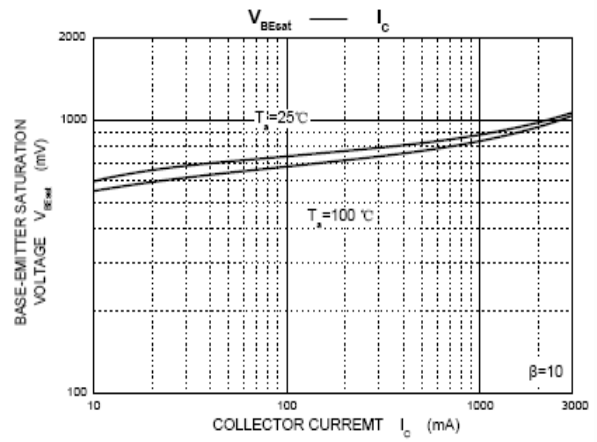
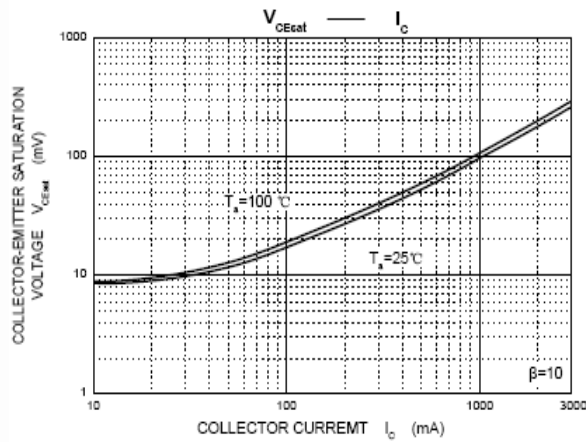
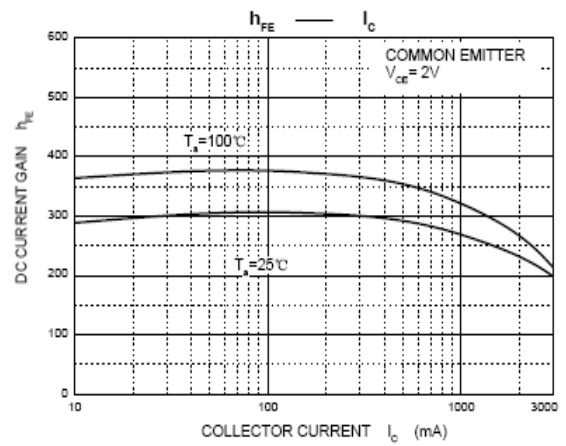
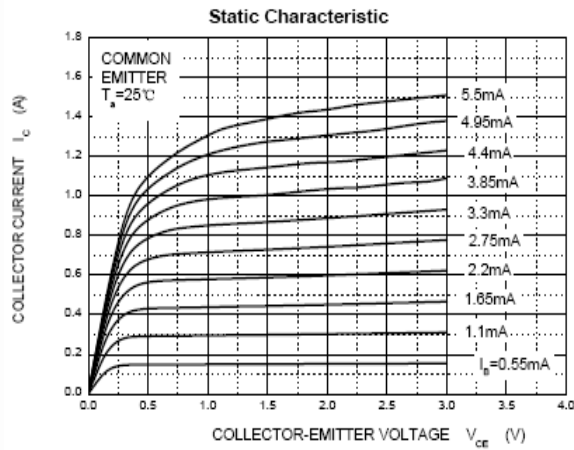
( $T_A=25^\circ\text{C}$  unless otherwise noted)

Symbol	Conditions	Min	TYP	Max	Unit
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=10\text{mA}$ , $I_B=0\text{mA}$ )	30	-	-	V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=100\mu\text{A}$ , $I_E=0\text{mA}$ )	40	-	-	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=100\mu\text{A}$ , $I_C=0\text{mA}$ )	6.0	-	-	V
$I_{CEO}$	Collector Cutoff Current ( $V_{CE}=30\text{V}$ , $I_B=0\text{mA}$ )	-	-	10	$\mu\text{A}$
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=40\text{V}$ , $I_E=0\text{mA}$ )	-	-	1.0	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=6.0\text{V}$ , $I_C=0\text{mA}$ )	-	-	1.0	$\mu\text{A}$
$h_{FE}$	DC Current Gain ( $I_C=1.0\text{A}$ , $V_{CE}=2.0\text{V}$ )	60	-	400	-
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=2.0\text{A}$ , $I_B=0.2\text{A}$ )	-	-	0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ( $I_C=2.0\text{A}$ , $I_B=0.2\text{A}$ )	-	-	1.5	V
$f_T$	Current-Gain-Bandwidth Product ( $I_C=0.1\text{A}$ , $V_{CE}=5.0\text{V}$ , $f=10\text{MHz}$ )	50	-	80	MHz

## Classification of $h_{FE}$

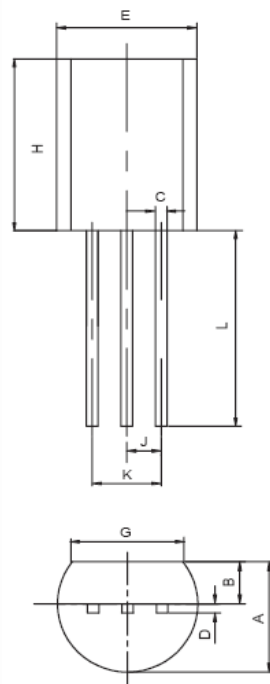
Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

# Typical Performance Characteristics



## Package Dimension

### TO-92







### Dimensions

Symbol	Millimeters		Inches	
	Min	Max	Min	Max
<b>A</b>	3.30	3.70	0.13	0.15
<b>B</b>	1.10	1.40	0.04	0.06
<b>C</b>	0.38	0.55	0.015	0.022
<b>D</b>	0.36	0.51	0.014	0.020
<b>E</b>	4.40	4.70	0.173	0.185
<b>G</b>	3.43	-	0.135	-
<b>H</b>	4.30	4.70	0.169	0.185
<b>J</b>	1.270(TYP)		0.050(TYP)	
<b>K</b>	2.44	2.64	0.096	0.104
<b>L</b>	14.10	14.50	0.555	0.571





## NOTICE

Information furnished is believed to be accurate and reliable. However Globaltech Semiconductor assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties, which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Globaltech Semiconductor. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information without express written approval of Globaltech Semiconductor.



## CONTACT US

GS Headquarter	
	4F.,No.43-1,Lane11,Sec.6,Minquan E.Rd Neihu District Taipei City 114, Taiwan (R.O.C)
	886-2-2657-9980
	886-2-2657-3630
	sales_twn@gs-power.com

Wu-Xi Branch	
	No.21 Changjiang Rd., WND, Wuxi, Jiangsu, China (INFO. & TECH. Science Park Building A 210 Room)
	86-510-85217051
	86-510-85211238
	sales_cn@gs-power.com

RD Division	
	824 Bolton Drive Milpitas. CA. 95035
	1-408-457-0587