

GSTS882

NPN Plastic-Encapsulate Transistor


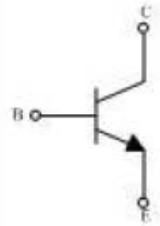
Product Description

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

Features

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

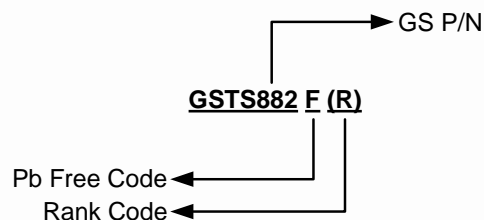
Packages & Pin Assignments

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

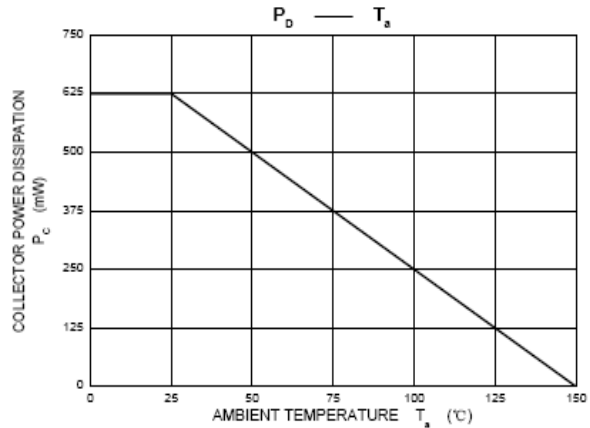
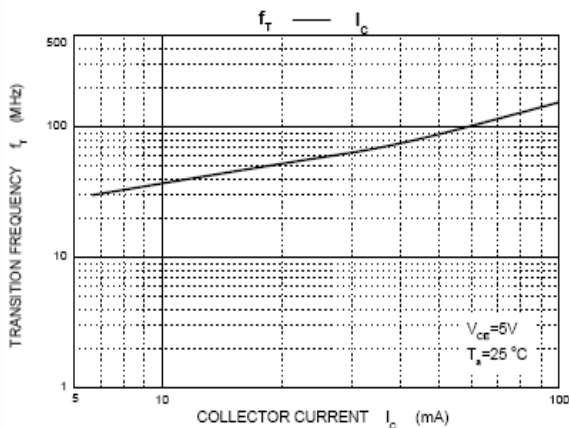
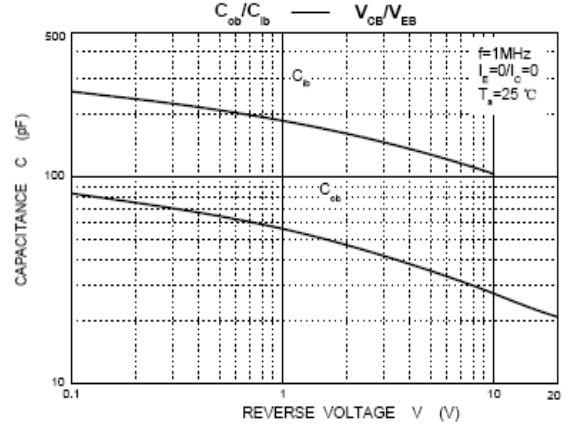
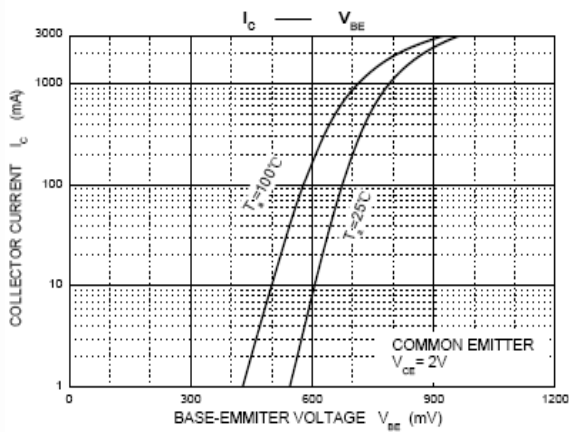
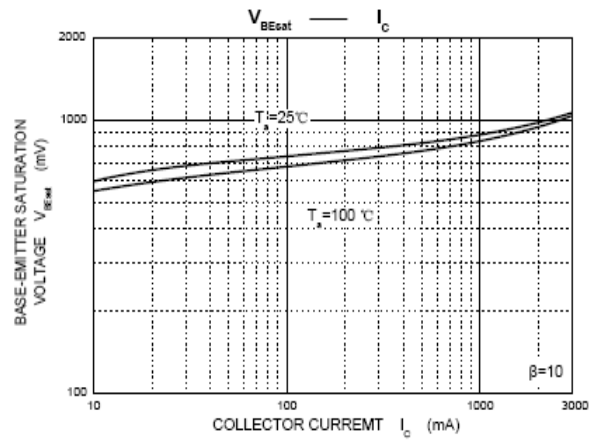
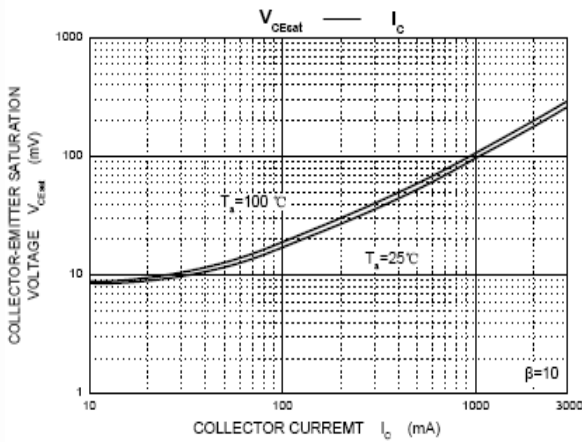
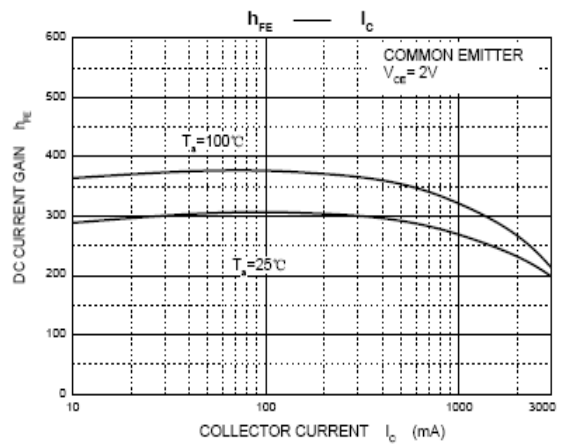
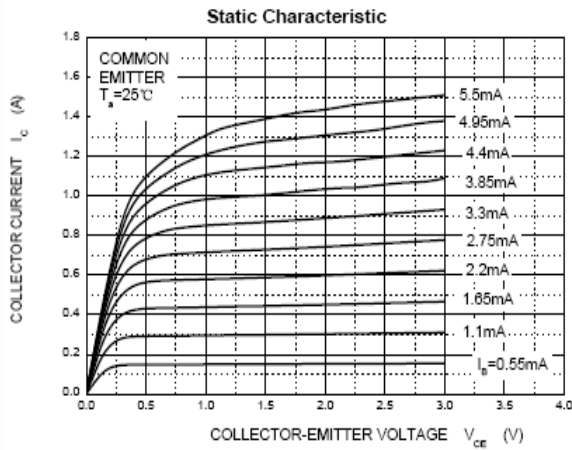
($T_A=25^\circ\text{C}$ unless otherwise noted)

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	μA
I_{CBO}	Collector Cutoff Current ($V_{CB}=40\text{V}$, $I_E=0\text{mA}$)	-	-	1.0	μA
I_{EBO}	Emitter Cutoff Current ($V_{EB}=6.0\text{V}$, $I_C=0\text{mA}$)	-	-	1.0	μA
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}

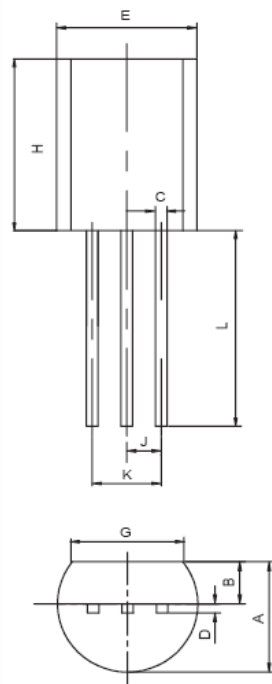
Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

Typical Performance Characteristics



Package Dimension

TO-92





Dimensions

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

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