

# GSTM772

## PNP Epitaxial Planar Transistors

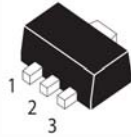
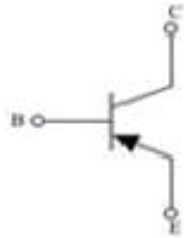
### Product Description

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

### Features

- Lead(Pb)-Free

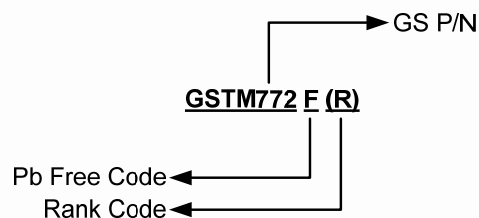
### Packages & Pin Assignments

SOT-89	
	
	
Pin	Description
1	Base
2	Collector
3	Emitter

### Marking Information

P/N	Package	Rank	Part Marking
GSTM772F	SOT-89	(R) / (O) / (Y) / (GR)	B772

### Ordering Information



Part Number	Package	Quantity
GSTM772F(R or O or Y or GR)	SOT-89	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	-5.0	V
$I_{C(DC)}$	Collector Current (DC)	-3.0	A
$P_D$	Total Device Dissipation $T_A=25^{\circ}\text{C}$	0.5	W
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	250	$^{\circ}\text{C/W}$
$T_J$	Junction Temperature Range	150	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$

## Electrical Characteristics

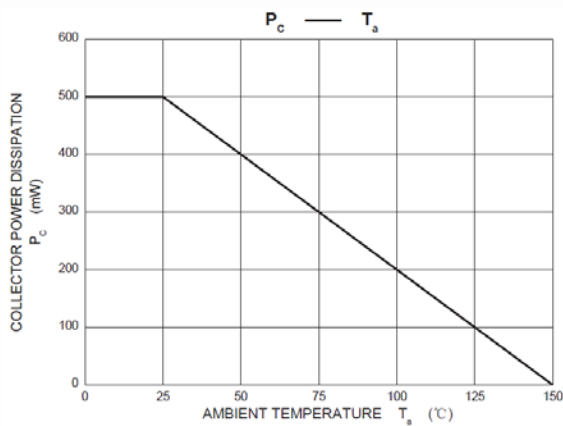
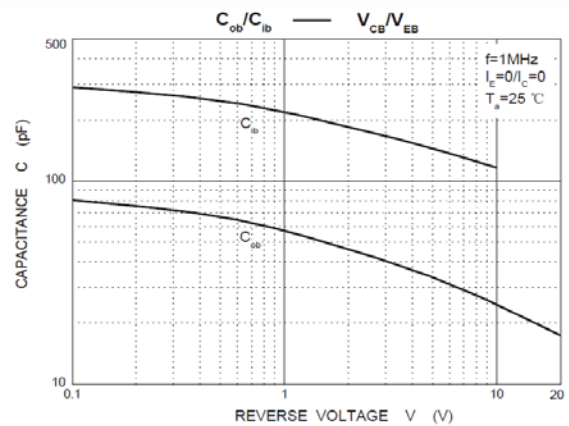
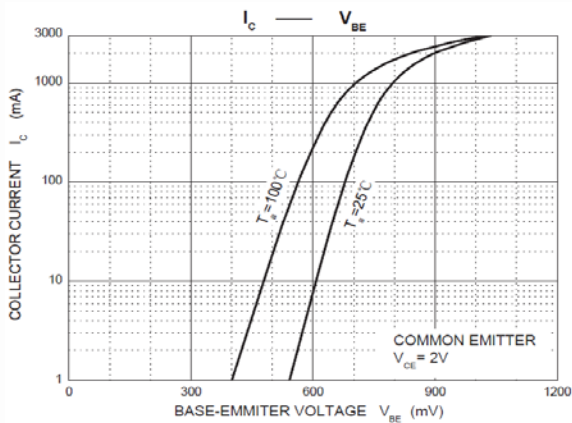
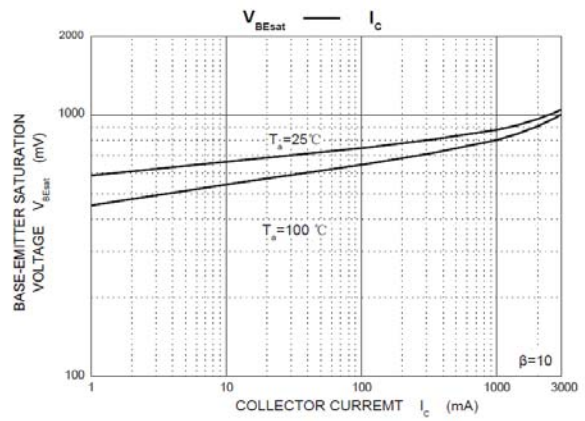
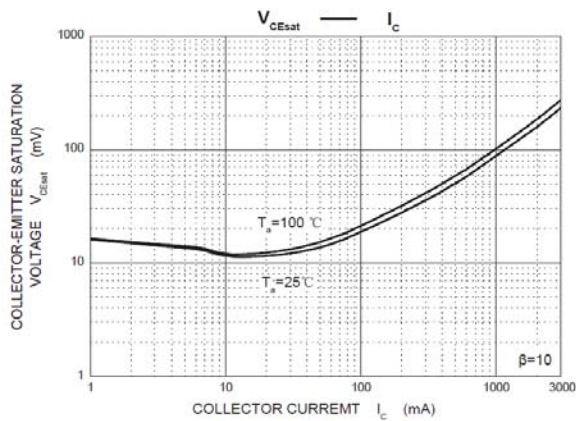
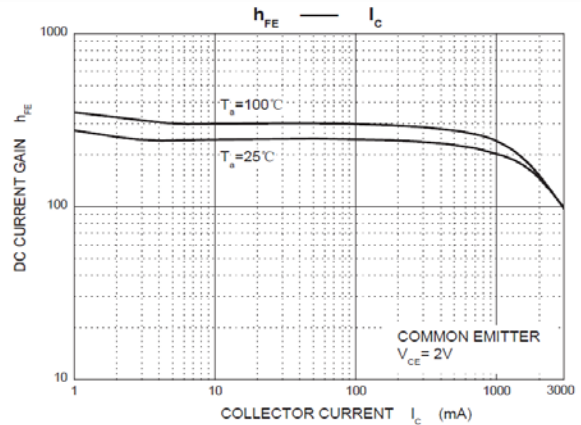
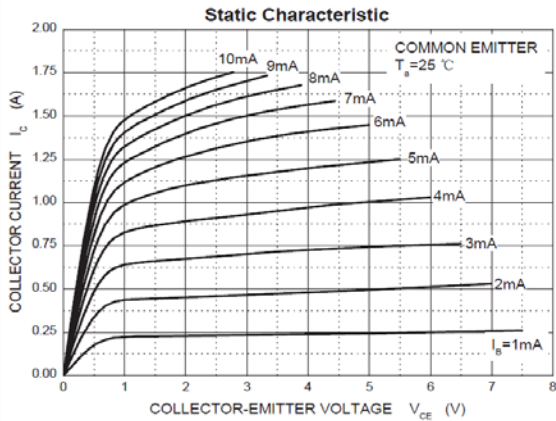
( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

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 ( $I_E=-100\mu\text{A}$ , $I_C=0\text{mA}$ )	-5.0	-	-	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 ( $I_C=-0.1\text{A}$ , $V_{CE}=-5.0\text{V}$ , $f=10\text{MHz}$ )	-	80	-	MHz

## Classification of $h_{FE}$

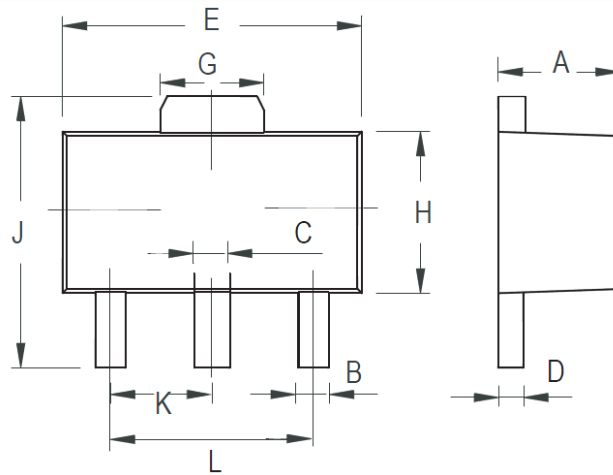
Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

# Typical Performance Characteristics



## Package Dimension

### SOT-89



### Dimensions

Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.0551	0.0629
B	0.320	0.520	0.0126	0.0204
C	0.360	0.560	0.0141	0.0220
D	0.350	0.440	0.0137	0.0173
E	4.400	4.600	0.1732	0.1811
G	1.400	1.800	0.0551	0.0708
H	2.300	2.600	0.0905	0.1023
J	3.940	4.250	0.1551	0.1673
K	1.500TYP		0.0590TYP	
L	2.900	3.100	0.1141	0.1220

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