

GSTD772

PNP Epitaxial Planar Transistors

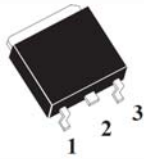
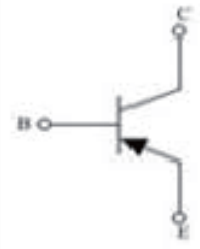
Product Description

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

Features

- Lead(Pb)-Free

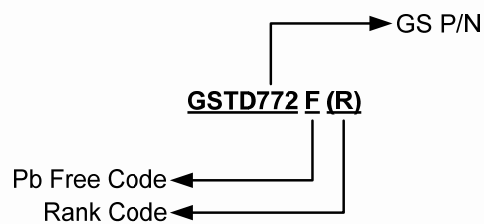
Packages & Pin Assignments

TO-252	
	
	
Pin	Description
1	Base
2	Collector
3	Emitter

Marking Information

P/N	Package	Rank	Part Marking
GSTD772F	TO-252	(R) / (O) / (Y) / (GR)	B772

Ordering Information



Part Number	Package	Quantity
GSTD772F(R or O or Y or GR)	TO-252	2500 PCS

Absolute Maximum Ratings

T_A=25°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	
I _{C(Pulse)}	Collector Current (Pulse) (1)	-7.0	A	
I _{B(Pulse)}	Base Current	-0.6	A	
P _D	Total Device Dissipation	T _C =25°C	10	W
		T _A =25°C	1.25	
T _J	Junction Temperature Range	150	°C	
T _{STG}	Storage Temperature Range	-55 to +150	°C	

Notes: 1. PW ≤ 350us, duty cycle ≤ 2%

Electrical Characteristics

T_A=25°C unless otherwise noted

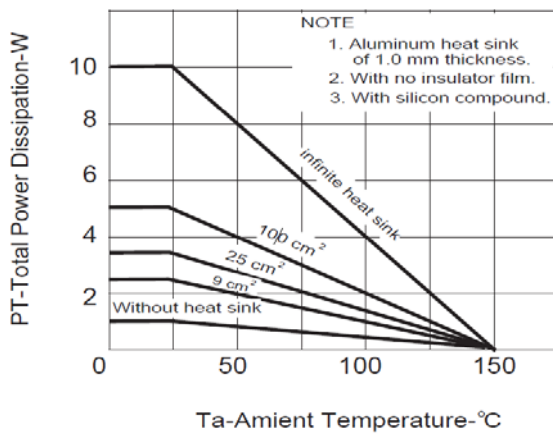
Symbol	Conditions	Min	TYP	Max	Unit
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage (I _C =-10mA, I _B =0mA)	-30	-	-	V
V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =-100uA, I _E =0mA)	-40	-	-	V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage (I _E =-100uA, I _C =0mA)	-5.0	-	-	V
I _{CEO}	Collector Cutoff Current (V _{CE} = -30V, I _B =0mA)	-	-	-1.0	uA
I _{CBO}	Collector Cutoff Current (V _{CB} = -40V, I _E =0mA)	-	-	-1.0	uA
I _{EBO}	Emitter Cutoff Current (V _{EB} = -6.0V, I _C =0mA)	-	-	-1.0	uA
h _{FE (1)}	DC Current Gain (I _C = -1.0A, V _{CE} =-2.0V)	60	-	400	-
h _{FE (2)}	DC Current Gain (I _C = -100mA, V _{CE} =-2.0V)	32	-	-	-
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C = -2.0A, I _B =-0.2mA)	-	-	-0.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage (I _C = -2.0A, I _B =-0.2mA)	-	-	-2.0	V
f _T	Current-Gain-Bandwidth Product (I _C = -0.1mA, V _{CE} =-5.0V, f=10MHz)	-	80	-	MHz

Classification of h_{FE(1)}

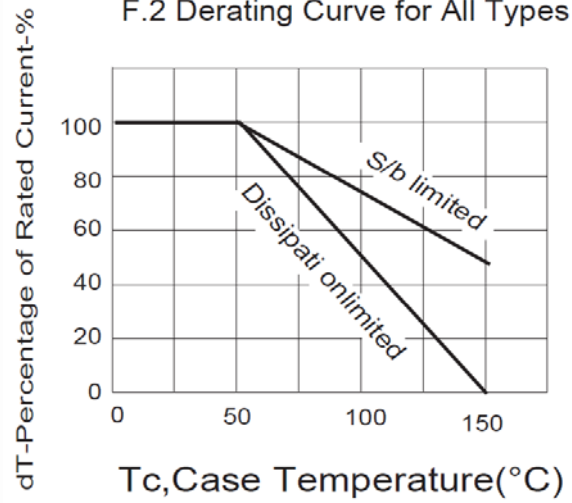
Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

Typical Performance Characteristics

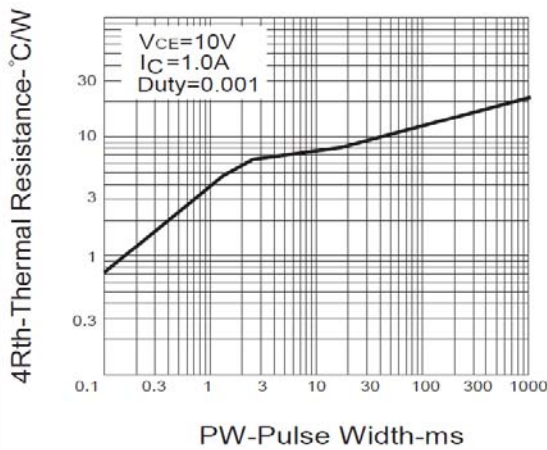
F1. Total Power Dissipation VS. Ambient Temperature



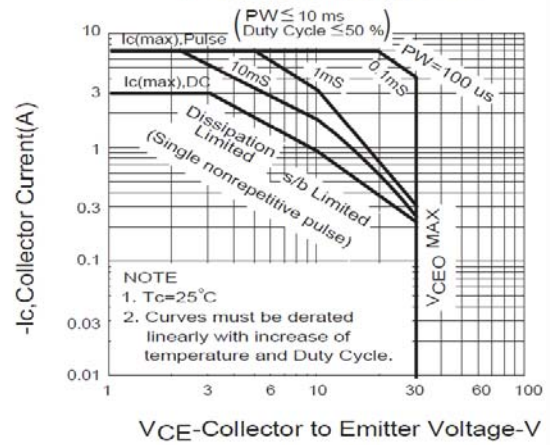
F.2 Derating Curve for All Types



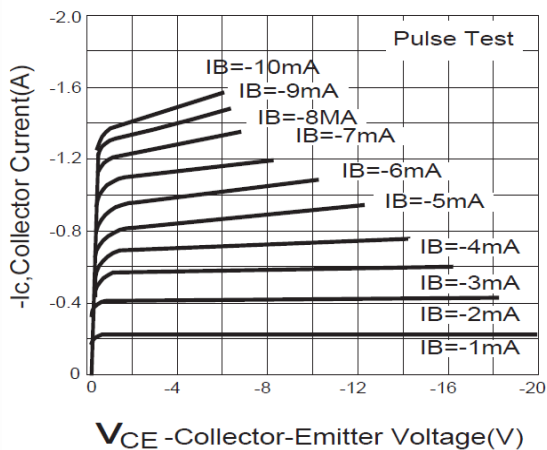
F3. Thermal Resistance VS. Pulse Width



F4. Safe Operating Areas

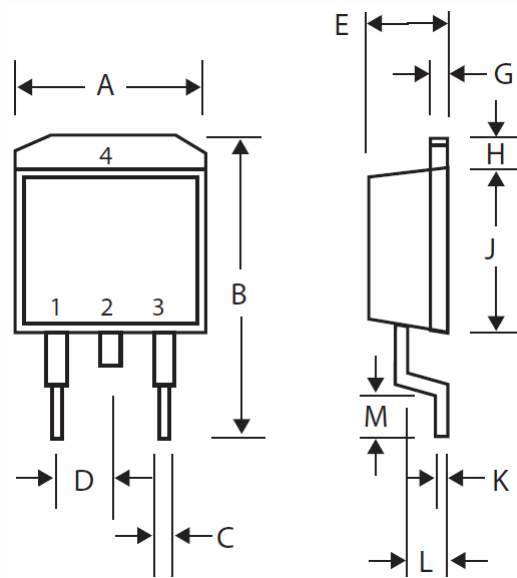


F5. Collector Current VS. Collector To Emitter Voltage



Package Dimension

TO-252







Dimensions





Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	6.40	6.80	0.251	0.267
B	9.00	10.00	0.354	0.393
C	0.50	0.80	0.019	0.031
D	-	2.30	-	0.090
E	2.20	2.50	0.086	0.098
G	0.45	0.55	0.017	0.021
H	1.00	1.60	0.039	0.062
J	5.40	5.80	0.212	0.228
K	0.30	0.64	0.011	0.025
L	0.70	1.70	0.027	0.066
M	0.90	1.50	0.035	0.059



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