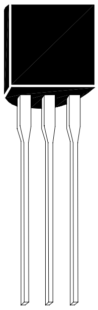
HSB772S

PNP EPITAXIAL PLANAR TRANSISTOR



TO-92

Description

The HSB772S is designed for using in output stage of 0.75W amplifier, voltage regulator, DC-DC converter and driver.

Absolute Maximum Ratings

- Maximum Temperatures
  Storage Temperature .... -55 to +150 °C
  Junction Temperature.. +150 °C Maximum
- Maximum Power Dissipation
  Total Power Dissipation (Ta=25°C) .... 750 mW
- Maximum Voltages and Currents (Ta=25°C)
  VCBO Collector to Base Voltage.. -40 V
  VCEO Collector to Emitter Voltage.. -30 V
  VEBO Emitter to Base Voltage.. -5 V
  IC Collector Current .... -3 A

Characteristics (Ta=25°C)

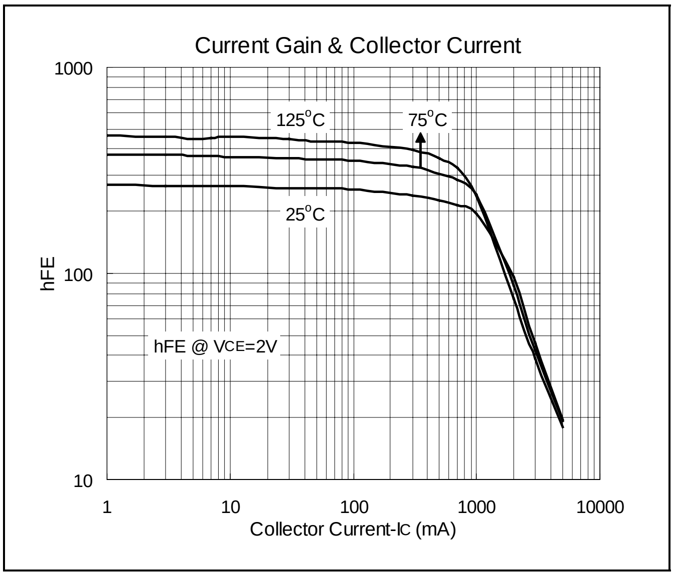
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-40	-	-	V	IC=-100uA, IE=0
BVCEO	-30	-	-	V	IC=-1mA, IB=0
BVEBO	-5	-	-	V	IE=-10uA, IC=0
ICBO	-	-	-1	uA	VCB=-30V, IE=0
IEBO	-	-	-1	uA	VEB=-3V, IC=0
*VCE(sat)	-	-0.3	-0.5	V	IC=-2A, IB=-0.2A
*VBE(sat)	-	-1	-2	V	IC=-2A, IB=-0.2A
*hFE1	30	-	-		VCE=-2V, IC=-20mA
*hFE2	100	160	400		VCE=-2V, IC=-1A
fT	-	80	-	MHz	VCE=-5V, IC=-0.1A, f=100MHz
Cob	-	55	-	pF	VCB=-10V, f=1MHz

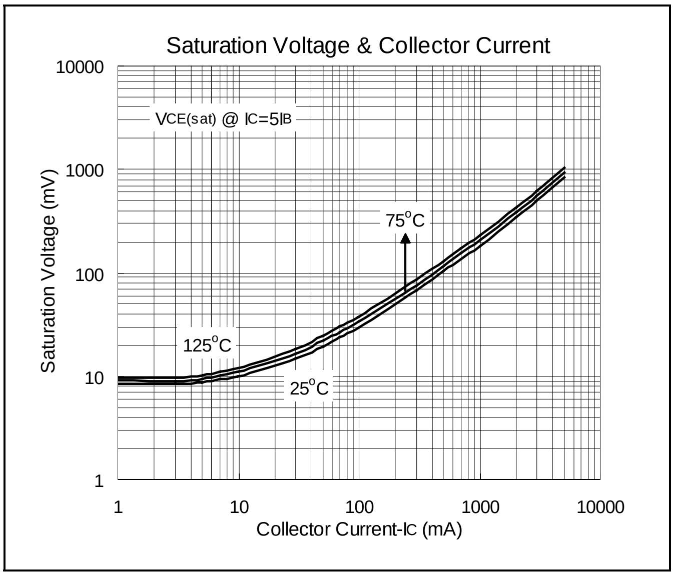
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

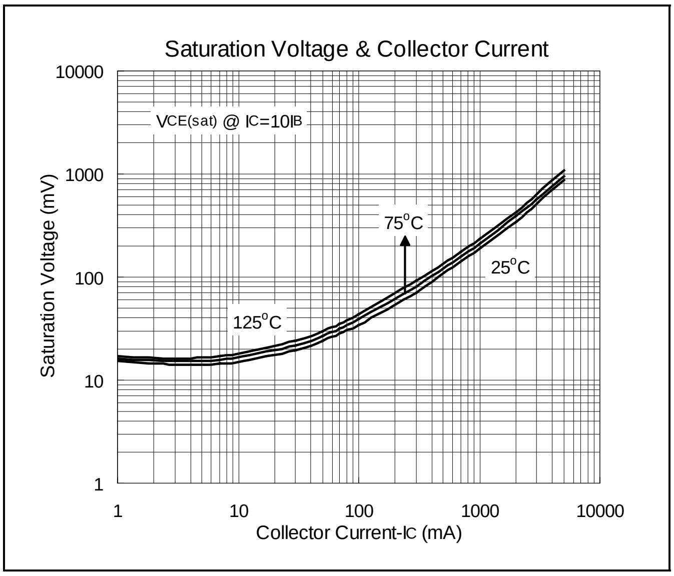
Classification Of hFE2

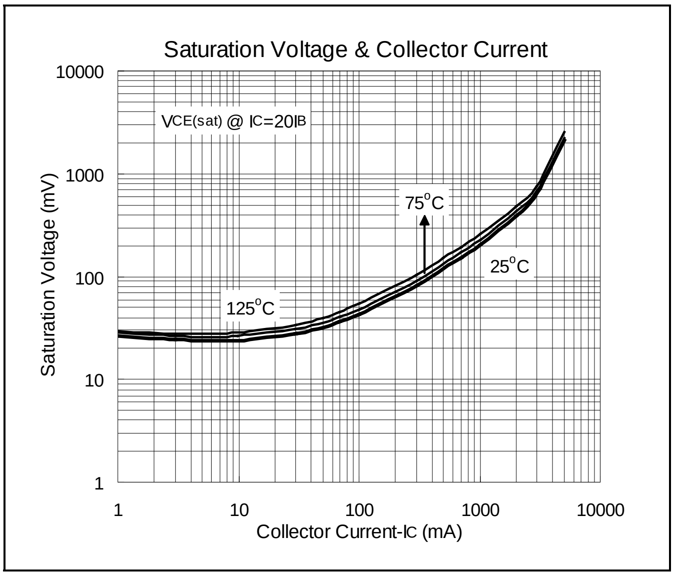
Rank	Q	P	E
Range	100-200	160-320	200-400

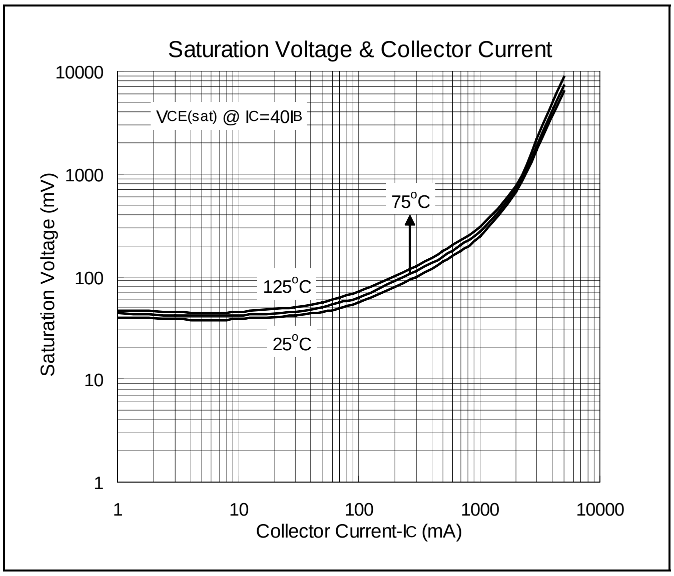
Characteristics Curve

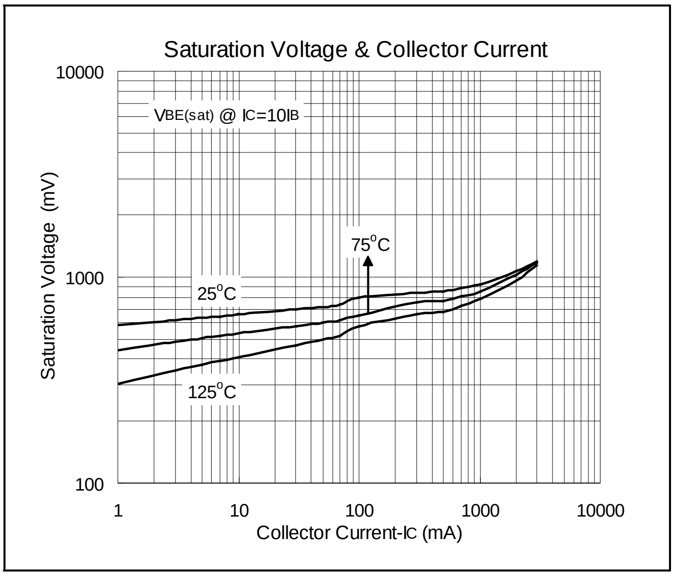

Current Gain & Collector Current

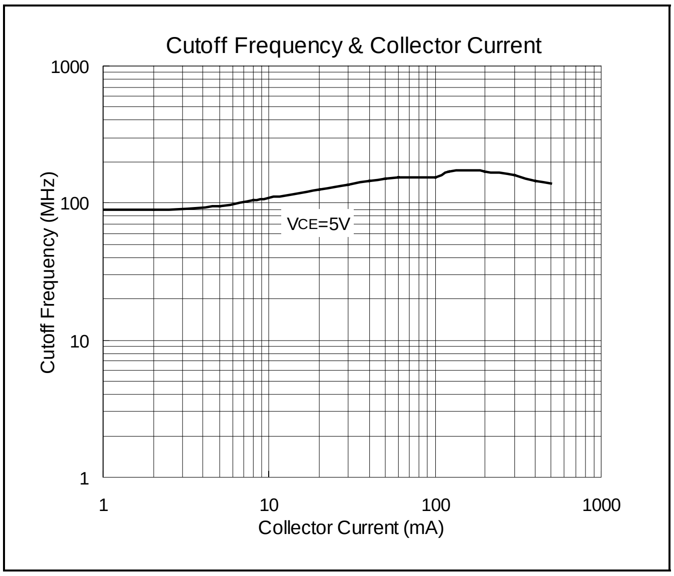

Saturation Voltage & Collector Current

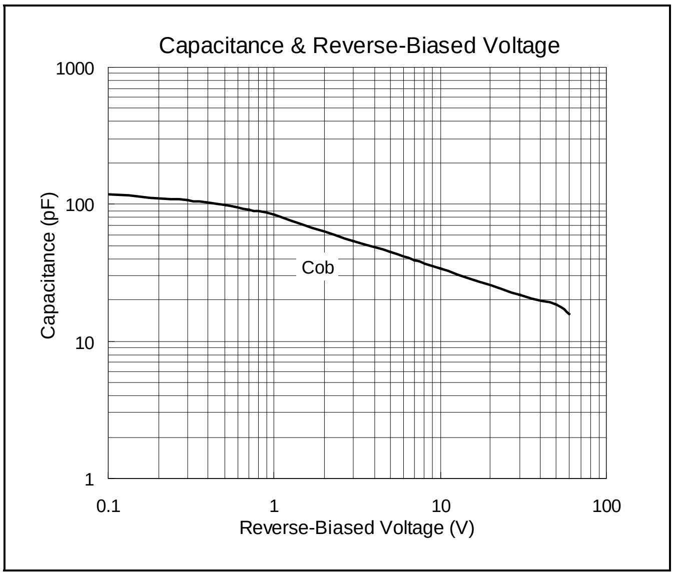

Saturation Voltage & Collector Current

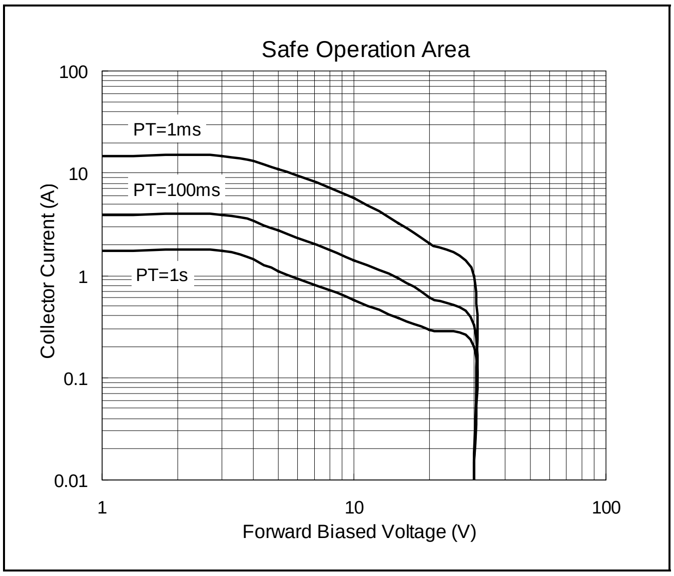

Saturation Voltage & Collector Current

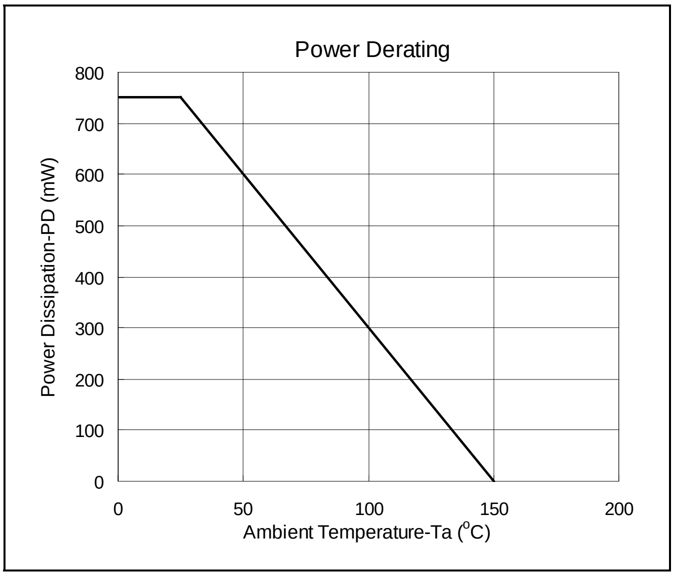

Saturation Voltage & Collector Current


Saturation Voltage & Collector Current

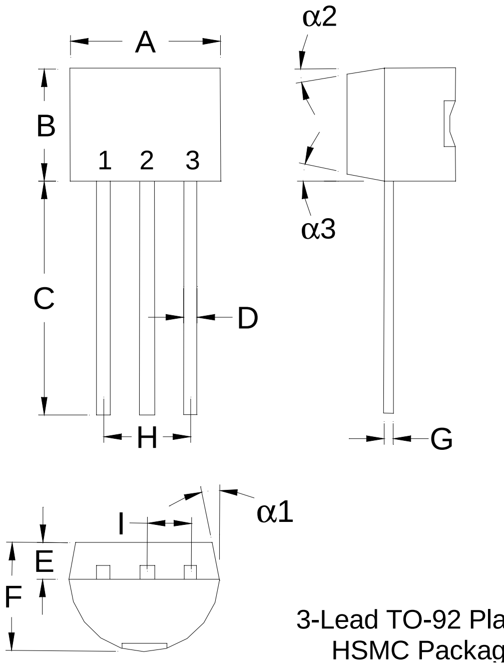

Cutoff Frequency & Collector Current
Cutoff Frequency (MHz)
1000
100
10
1
VCE=5V
1
10
100
1000
Collector Current (mA)


Capacitance & Reverse-Biased Voltage
Capacitance (pF)
1000
100
10
1
Cob
0.1
1
10
100
Reverse-Biased Voltage (V)

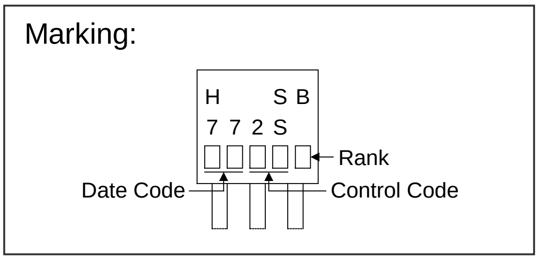

Safe Operation Area
Collector Current (A)
100
10
1
0.1
0.01
PT=1ms
PT=100ms
PT=1s
1
10
100
Forward Biased Voltage (V)


Power Derating
Power Dissipation-PD (mW)
800
700
600
500
400
300
200
100
0
0
50
100
150
200
Ambient Temperature-Ta (°C)

TO-92 Dimension



3-Lead TO-92 Plastic Package
HSMC Package Code: A



Style: Pin 1.Emitter 2.Collector 3.Base

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1704	0.1902	4.33	4.83	G	0.0142	0.0220	0.36	0.56
B	0.1704	0.1902	4.33	4.83	H	-	*0.1000	-	*2.54
C	0.5000	-	12.70	-	I	-	*0.0500	-	*1.27
D	0.0142	0.0220	0.36	0.56	α1	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	α2	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	α3	-	*2°	-	*2°

Notes: 1.Dimension and tolerance based on our Spec. dated Apr. 25,1996.
2.Controlling dimension: millimeters.
3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

Material:

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

Important Notice:

Head Office And Factory:

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
  Tel: 886-2-25212056 Fax: 886-2-25632712, 25368454
- **Factory 1:** No. 38, Kuang Fu S. Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
  Tel: 886-3-5983621~5 Fax: 886-3-5982931