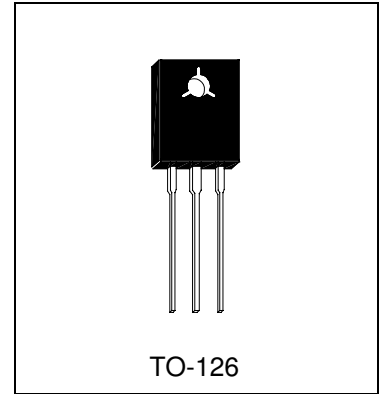




HT772

PNP EPITAXIAL PLANAR TRANSISTOR



TO-126

Description

The HT772 is designed for using in output stage of 1w audio amplifier, voltage regulator, DC-DC converter and relay driver.

Absolute Maximum Ratings (T_A=25°C)

- Maximum Temperatures
 - Storage Temperature -55 ~ +150 °C
 - Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 - Total Power Dissipation (T_A=25°C) 1 W
 - Total Power Dissipation (T_C=25°C) 10 W
- Maximum Voltages and Currents
 - BV_{CBO} Collector to Base Voltage -40 V
 - BV_{CEO} Collector to Emitter Voltage -30 V
 - BV_{EBO} Emitter to Base Voltage -5 V
 - I_C Collector Current (DC) -3 A
 - I_C Collector Current (Pulse) -7 A
 - I_B Base Current (DC) -0.6 A

Electrical Characteristics (T_A=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CBO}	-40	-	-	V	I _C =-100uA
BV _{CEO}	-30	-	-	V	I _C =-1mA
BV _{EBO}	-5	-	-	V	I _E =-10uA
I _{CBO}	-	-	-1	uA	V _{CB} =-30V
I _{EBO}	-	-	-1	uA	V _{EB} =-3V
*V _{CE(sat)}	-	-	-0.5	V	I _C =-2A, I _B =-0.2A
*V _{BE(sat)}	-	-1	-2	V	I _C =-2A, I _B =-0.2A
*h _{FE1}	30	-	-		I _C =-20mA, V _{CE} =-2V
*h _{FE2}	100	200	400		I _C =-1A, V _{CE} =-2V
f _T	-	80	-	MHz	I _C =-0.1A, V _{CE} =-5V
Cob	-	55	-	pF	V _{CB} =-10V, f=1MHz, I _E =0

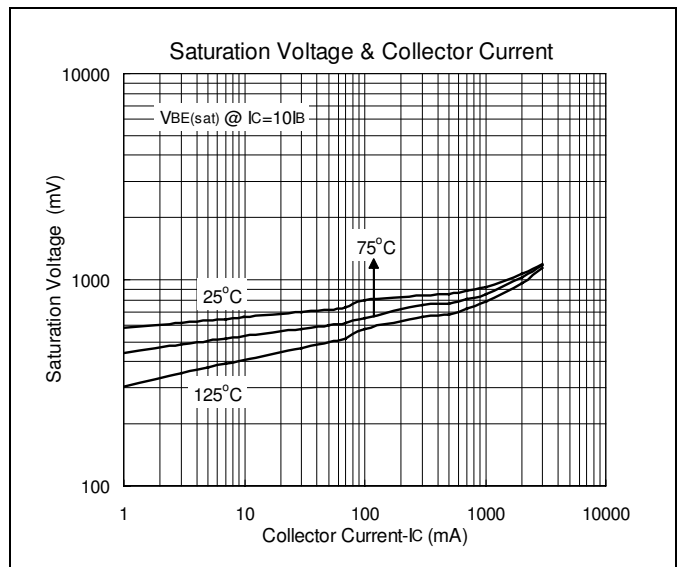
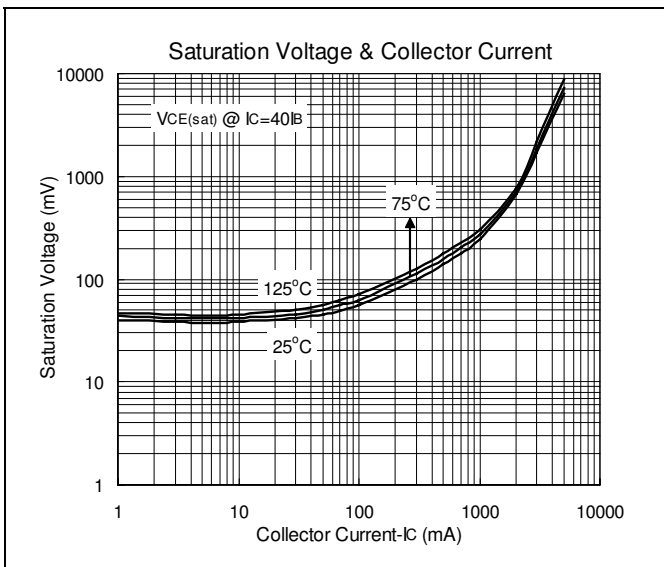
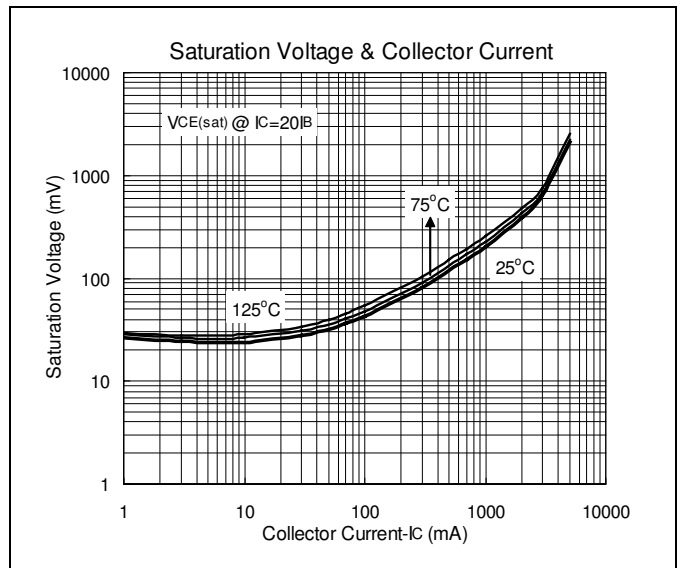
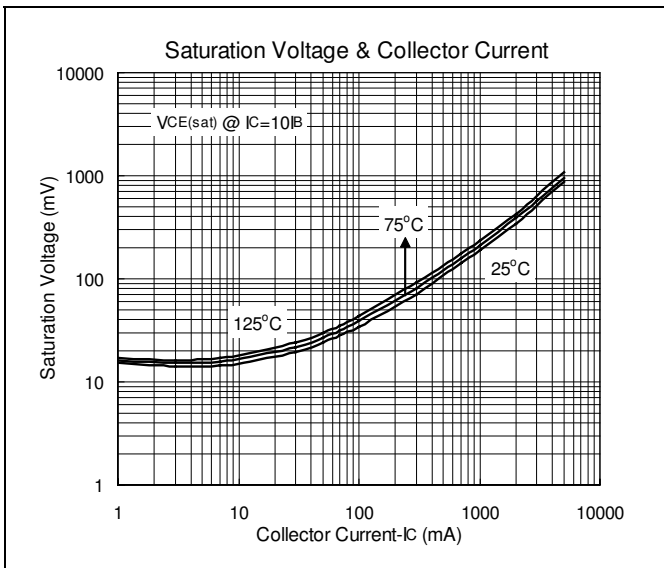
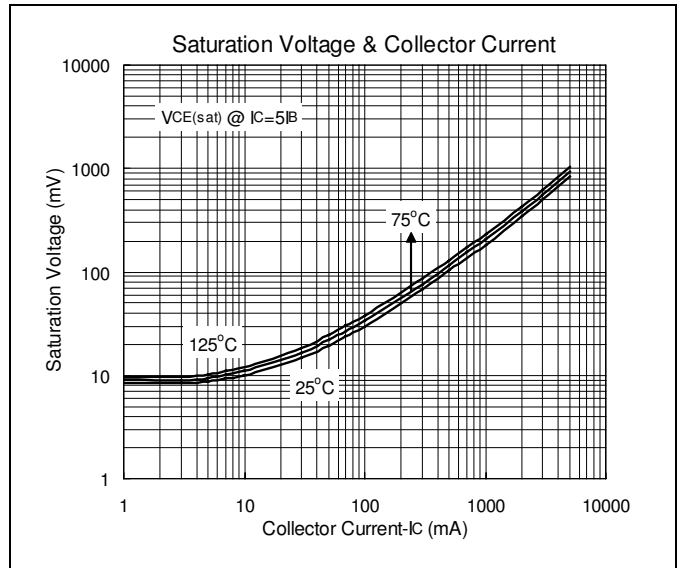
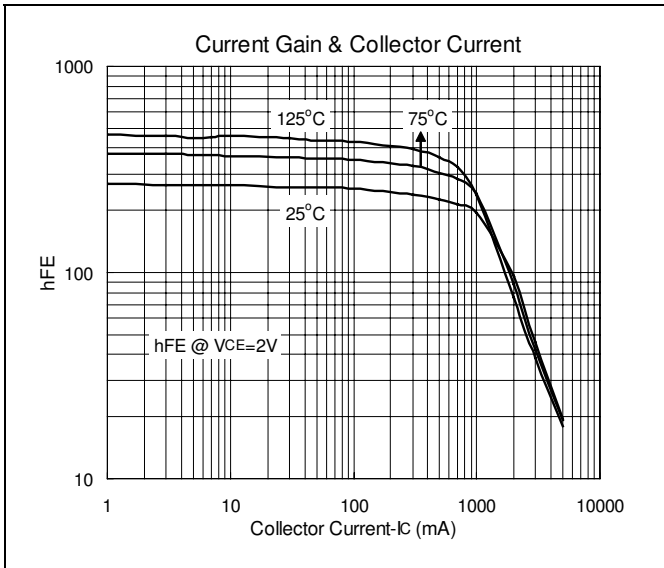
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

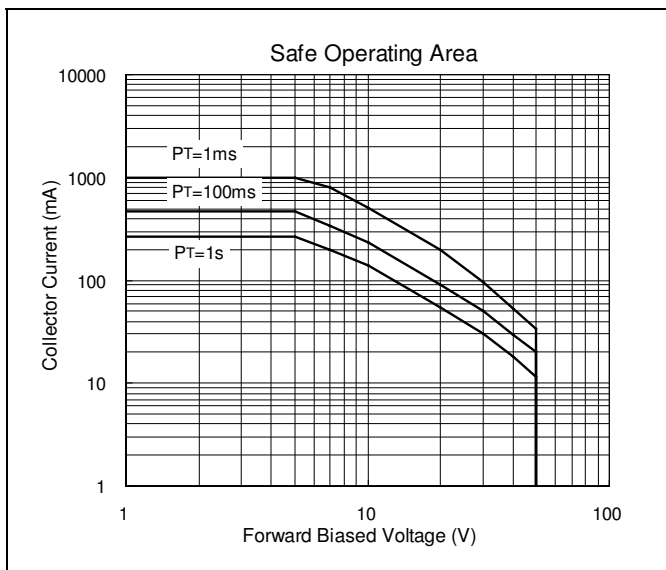
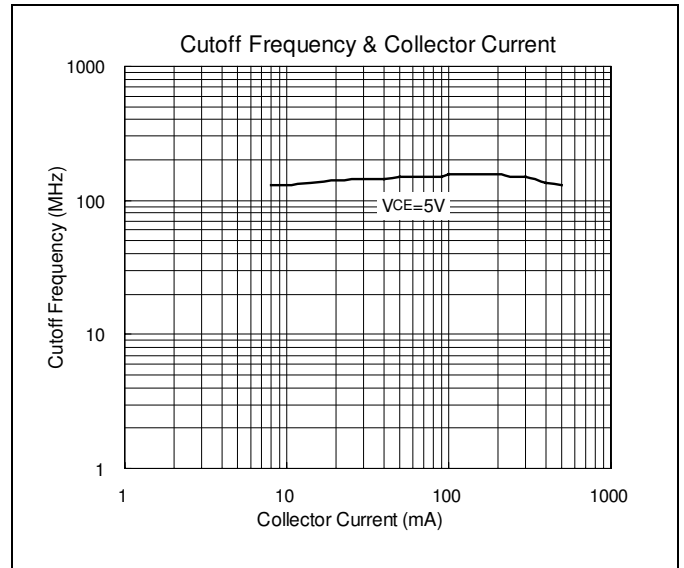
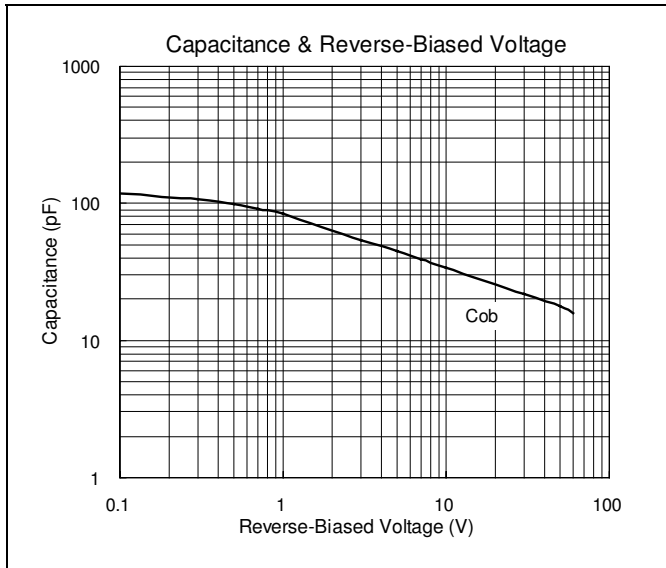
Classification Of hFE2

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



Characteristics Curve







TO-126 Dimension

3-Lead TO-126 Plastic Package
 HSMC Package Code: T

Marking:

Pb Free Mark
 Pb-Free: "●" (Note)
 Normal: None

Date Code: 7 7 2
 Control Code: H T

Note: Green label is used for pb-free packing
 Pin Style: 1.Emitter 2.Collector 3.Base

Material:

- Lead solder plating: Sn60/Pb40 (Normal), Sn/3.0Ag/0.5Cu or Pure-Tin (Pb-free)
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

DIM	Min.	Max.
A	3.60	4.40
B	6.90	7.60
C	13.00	16.50
D	7.20	8.50
F	0.65	0.88
G	1.00	1.42
H	4.52	4.62
J	1.14	1.50
K	0.90	1.50
L	0.45	0.60
M	2.92	3.40
N	2.00	2.70

Unit: mm

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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



Soldering Methods for HSMC's Products

1. Storage environment: Temperature=10°C~35°C Humidity=65%±15%
2. Reflow soldering of surface-mount devices



Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Average ramp-up rate (T _L to T _p)	<3°C/sec	<3°C/sec
Preheat		
- Temperature Min (T _{smin})	100°C	150°C
- Temperature Max (T _{smax})	150°C	200°C
- Time (min to max) (ts)	60~120 sec	60~180 sec
T _{smax} to T _L		
- Ramp-up Rate	<3°C/sec	<3°C/sec
Time maintained above:		
- Temperature (T _L)	183°C	217°C
- Time (t _L)	60~150 sec	60~150 sec
Peak Temperature (T _p)	240°C +0/-5°C	260°C +0/-5°C
Time within 5°C of actual Peak Temperature (t _p)	10~30 sec	20~40 sec
Ramp-down Rate	<6°C/sec	<6°C/sec
Time 25°C to Peak Temperature	<6 minutes	<8 minutes

3. Flow (wave) soldering (solder dipping)

Products	Peak temperature	Dipping time
Pb devices.	245°C ±5°C	10sec ±1sec
Pb-Free devices.	260°C ±5°C	10sec ±1sec