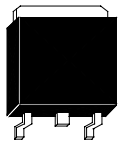
HJ772

PNP EPITAXIAL PLANAR TRANSISTOR



TO-252

Description

The HJ772 is designed for using in output stage of 20 W audio amplifier, voltage regulator, DC-DC converter and relay driver.

Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
  Storage Temperature ..... -55 ~ +150 °C
  Junction Temperature ..... +150 °C
- Maximum Power Dissipation
  Total Power Dissipation (Tc=25°C)..... 10 W
- Maximum Voltages and Currents
  BVCBO Collector to Base Voltage ..... -40 V
  BVCEO Collector to Emitter Voltage ..... -30 V
  BVEBO Emitter to Base Voltage ..... -5 V
  IC Collector Current (DC)..... -3 A
  IC Collector Current (Pulse)..... -7 A
  IB Base Current (DC)..... -600 mA

Thermal Characteristic

Characteristic	Symbol	Max.	Unit
Thermal Resistance, junction to case	Rθjc	12.5	°C/W

Characteristics (Ta=25°C)

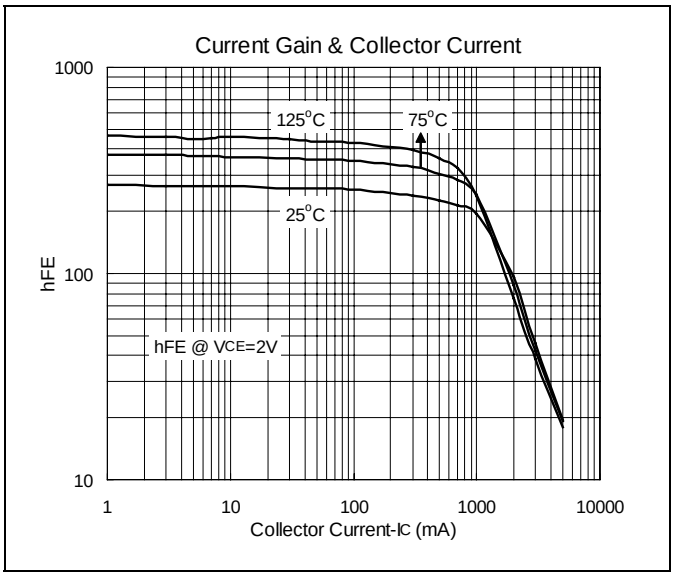
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-40	-	-	V	IC=-100uA, IE=0
BVCEO	-30	-	-	V	IC=-1mA, IB=0
BVEBO	-5	-	-	V	IE=-10uA, IC=0
ICBO	-	-	-1	uA	VCB=-30V, IE=0
IEBO	-	-	-1	uA	VEB=-3V, IC=0
*VCE(sat)	-	-0.3	-0.5	V	IC=-2A, IB=-0.2A
*VBE(sat)	-	-1	-2	V	IC=-2A, IB=-0.2A
*hFE1	30	-	-		VCE=-2V, IC=-20mA
*hFE2	100	-	500		VCE=-2V, IC=-1A
fT	-	80	-	MHz	VCE=-5V, IC=-0.1A, f=100MHz
Cob	-	55	-	pF	VCB=-10V, f=-1MHz, IE=0

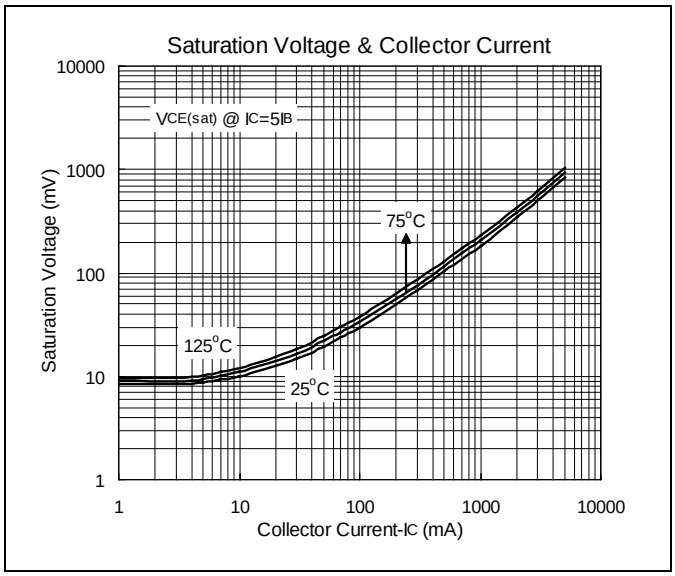
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

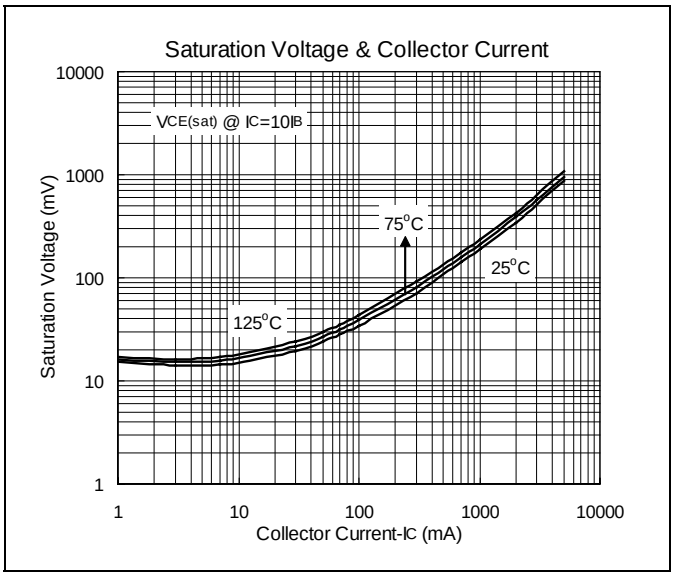
Classification Of hFE1

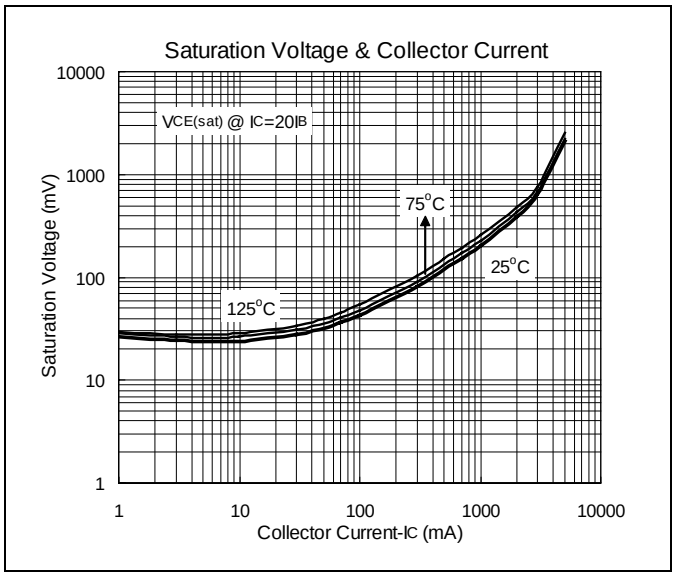
Rank	Q	P	E
Range	100-200	160-320	250-500

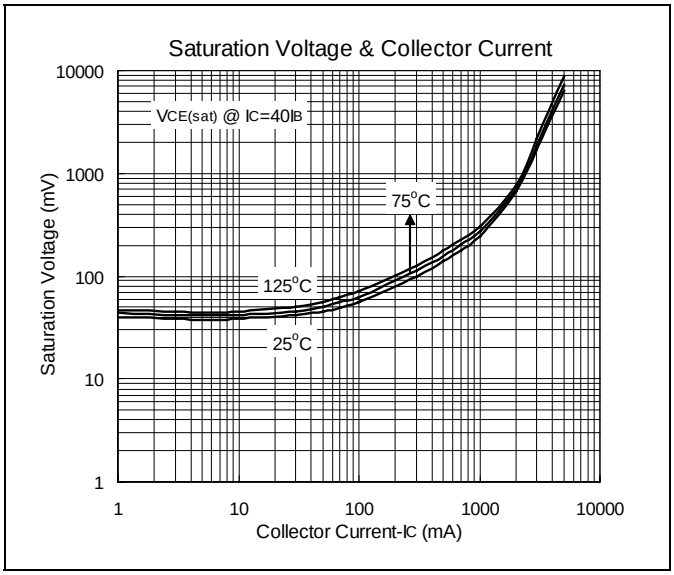
Characteristics Curve

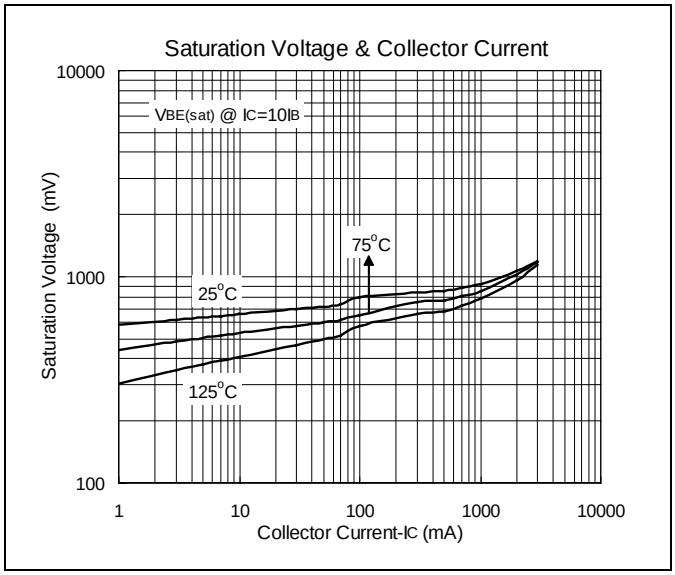


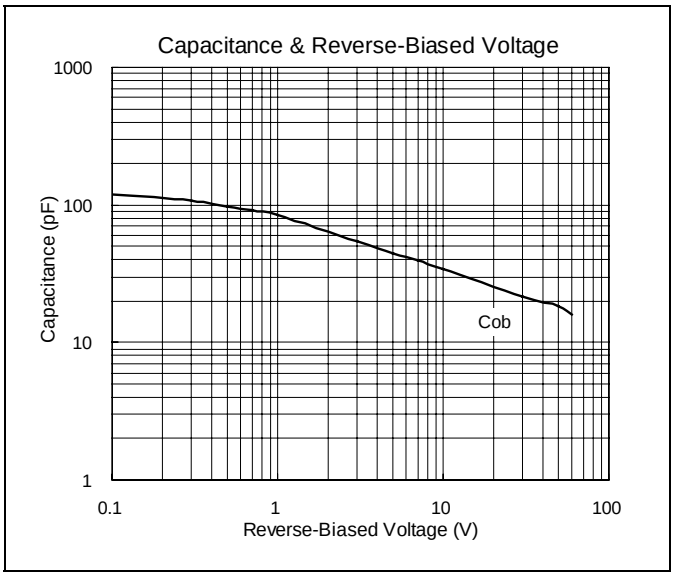


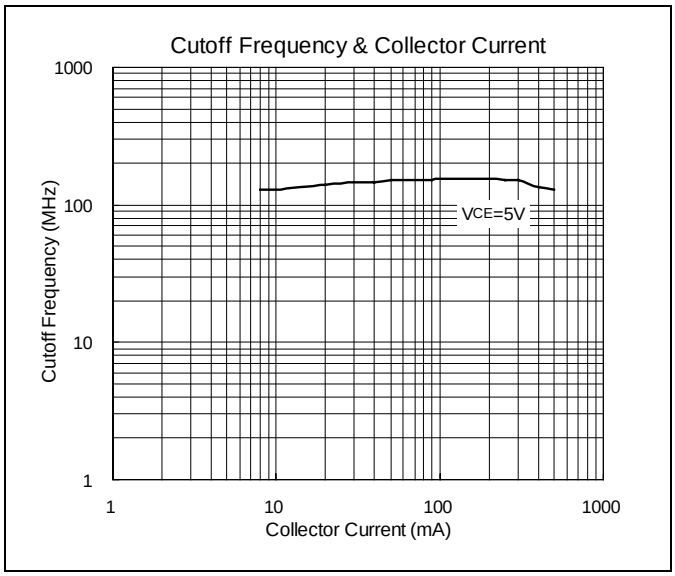


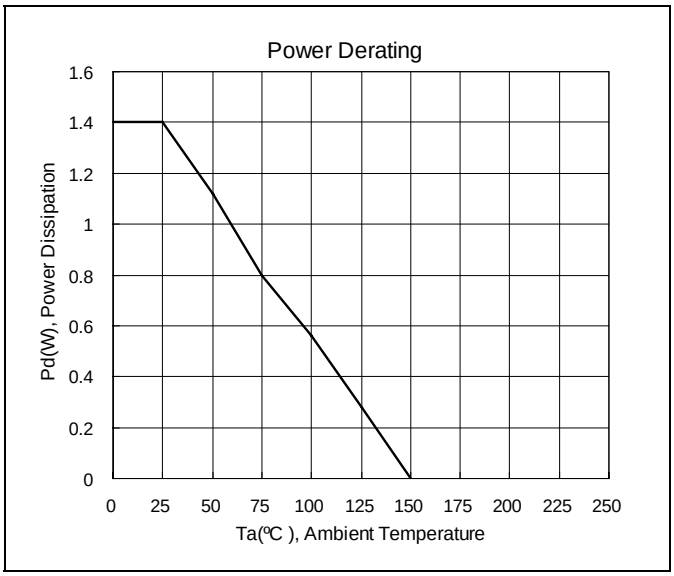


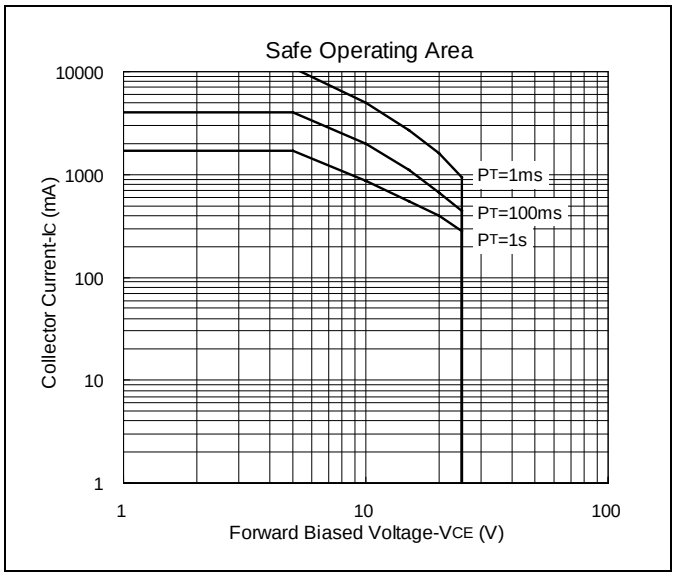




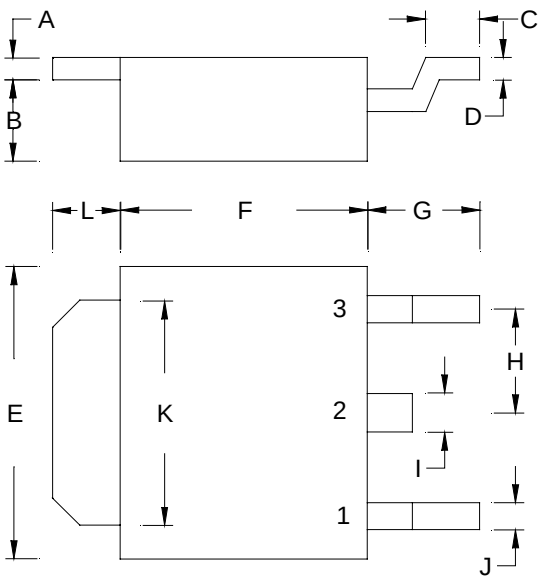

Capacitance & Reverse-Biased Voltage
1000
100
10
1
Capacitance (pF)
0.1
1
10
100
Reverse-Biased Voltage (V)
Cob


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


Power Derating
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Pd(W), Power Dissipation
0
25
50
75
100
125
150
175
200
225
250
Ta(℃), Ambient Temperature

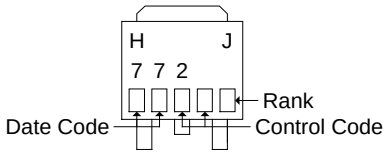

Safe Operating Area
10000
1000
100
10
1
Collector Current-IC (mA)
1
10
100
Forward Biased Voltage-VCE (V)
PT=1ms
PT=100ms
PT=1s

TO-252 Dimension



3-Lead TO-252 Plastic Surface Mount Package
HSMC Package Code: J

Marking:



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

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0177	0.0217	0.45	0.55	G	0.0866	0.1102	2.20	2.80
B	0.0650	0.0768	1.65	1.95	H	-	*0.0906	-	*2.30
C	0.0354	0.0591	0.90	1.50	I	-	0.0354	-	0.90
D	0.0177	0.0236	0.45	0.60	J	-	0.0315	-	0.80
E	0.2520	0.2677	6.40	6.80	K	0.2047	0.2165	5.20	5.50
F	0.2125	0.2283	5.40	5.80	L	0.0551	0.0630	1.40	1.60

Notes: 1.Dimension and tolerance based on our Spec. dated May. 05,1996.
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

Head Office And Factory:

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
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- **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

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