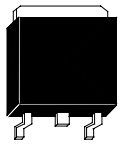
HJ112

NPN EPITAXIAL PLANAR TRANSISTOR



TO-252

Description

The HJ112 is designed for use in general purpose amplifier and low-speed switching applications.

Absolute Maximum Ratings (Ta=25°C)

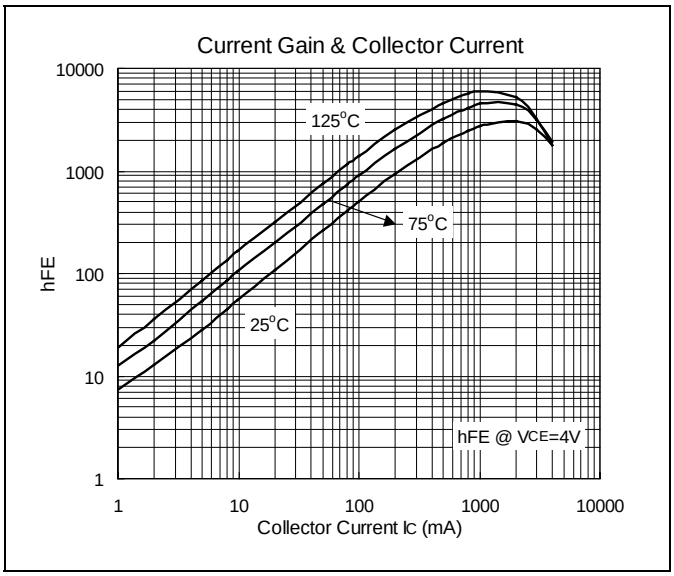
- Maximum Temperatures
  Storage Temperature ..... -55 ~ +150 °C
  Junction Temperature ..... 150 °C Maximum
- Maximum Power Dissipation
  Total Power Dissipation (Tc=25°C) ..... 20 W
- Maximum Voltages and Currents (Ta=25°C)
  VCBO Collector to Base Voltage ..... 100 V
  VCEO Collector to Emitter Voltage ..... 100 V
  VEBO Emitter to Base Voltage ..... 5 V
  IC Collector Current ..... 4 A

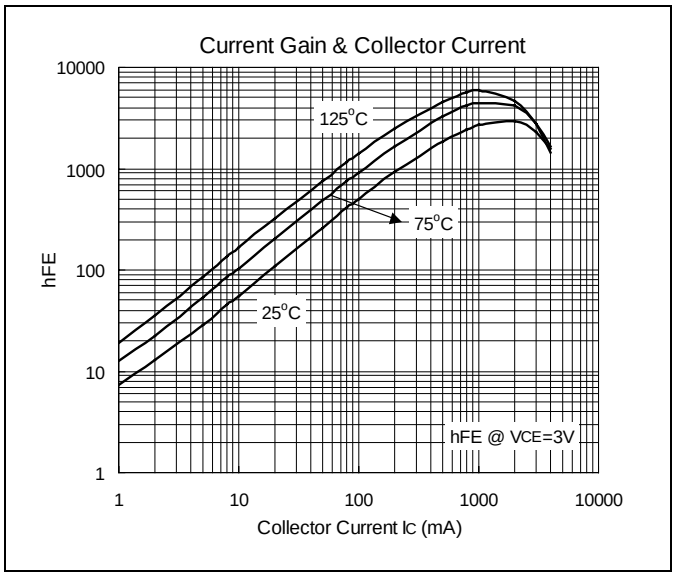
Characteristics (Ta=25°C)

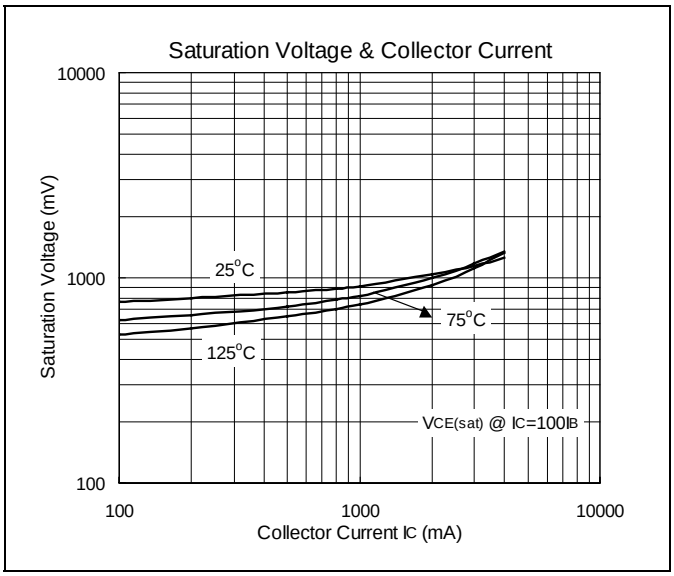
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	100	-	-	V	IC=1mA
BVCEO	100	-	-	V	IC=30mA
ICBO	-	-	10	uA	VCB=80V
ICEO	-	-	20	uA	VCE=50V
IEBO	-	-	2	mA	
*VCE(sat)1	-	-	2.5	V	IC=2A, IB=8mA
*VBE(on)	-	-	2.8	V	IC=2A, VCE=3V
*hFE1	500	-	-		IC=0.5A, VCE=3V
*hFE2	1	-	12	K	IC=2A, VCE=3V
*hFE3	200	-	-		IC=4A, VCE=3V
Cob	-	-	100	pF	VCB=10V

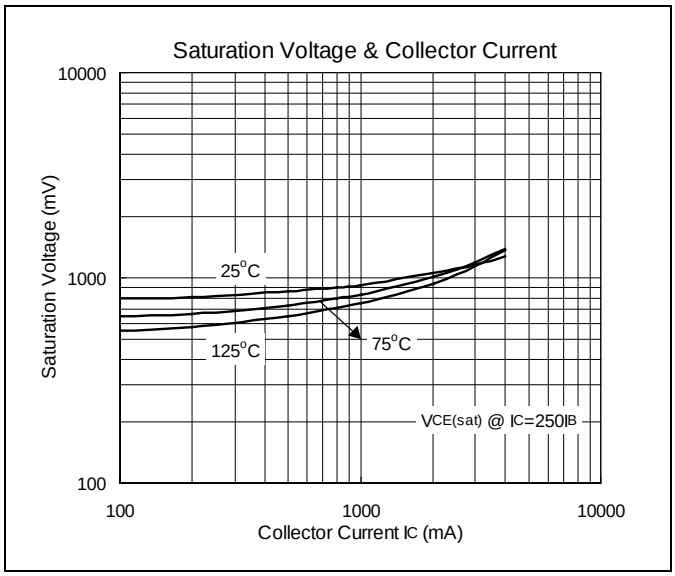
*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

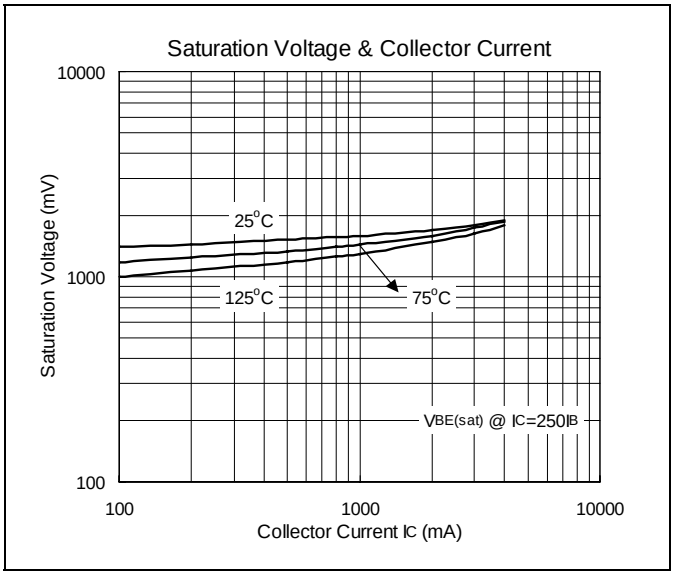
Characteristics Curve

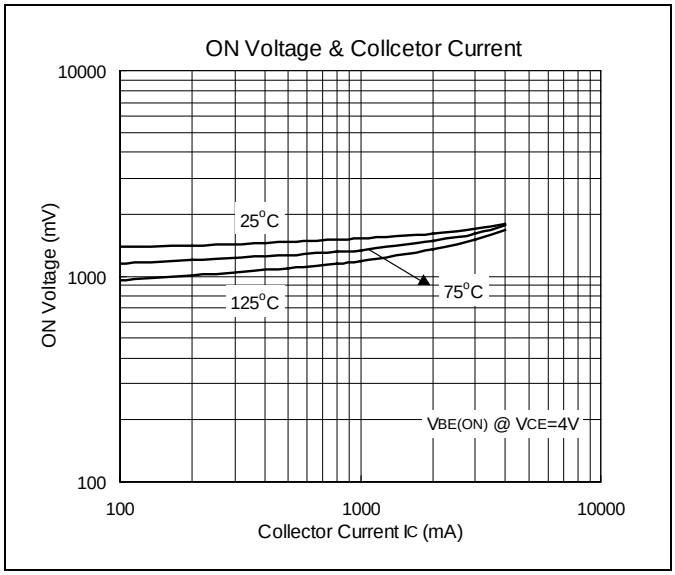


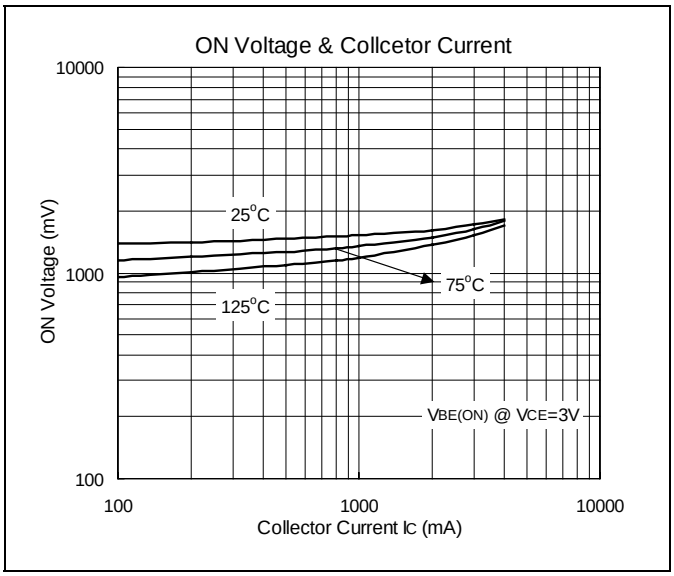


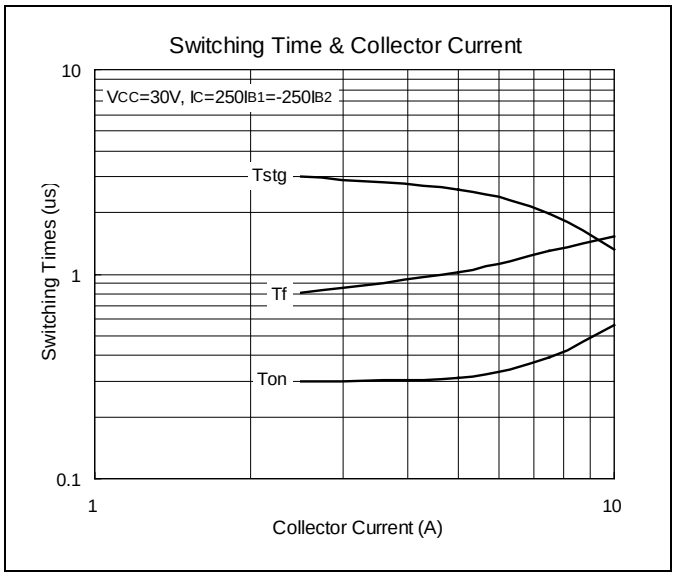


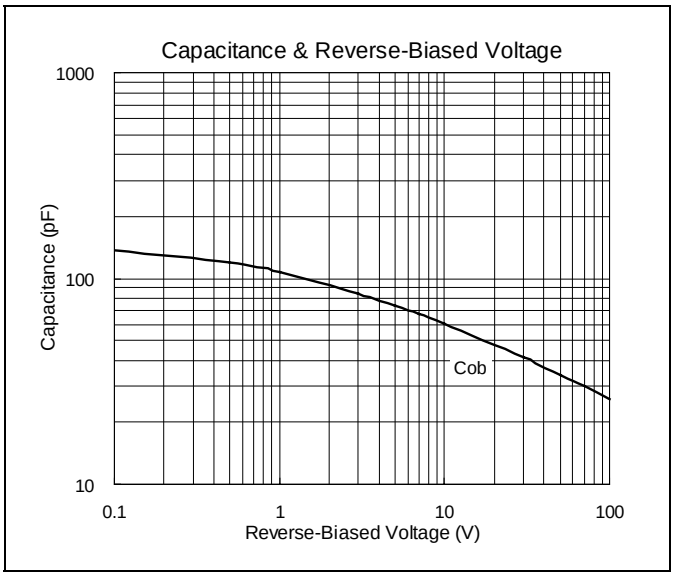


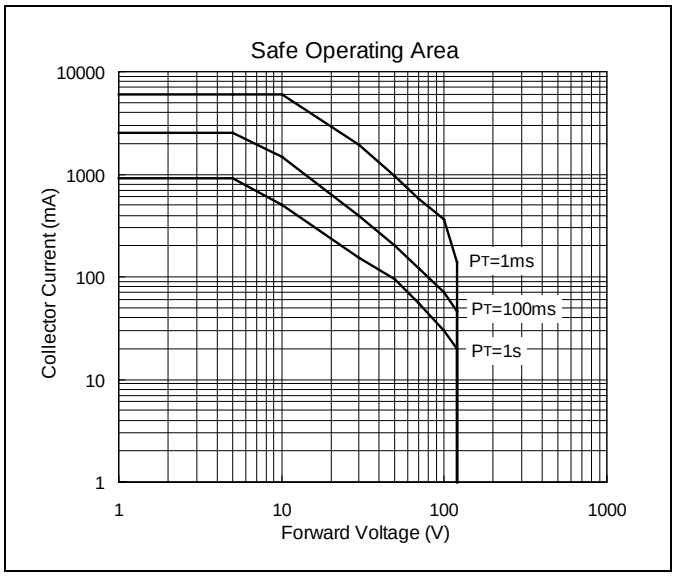


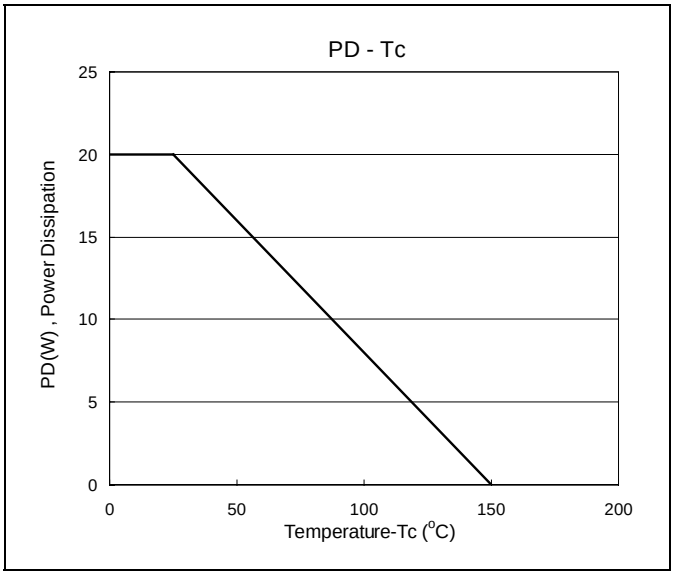



ON Voltage & Collcetor Current
10000
1000
100
ON Voltage (mV)
25°C
75°C
125°C
VBE(ON) @ VCE=3V
100
1000
10000
Collector Current IC (mA)

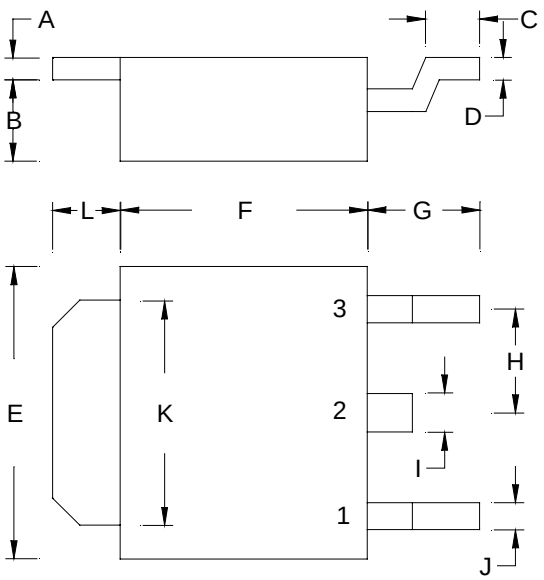

Switching Time & Collector Current
10
1
0.1
Switching Times (us)
VCC=30V, IC=250IB1=-250IB2
Tstg
Tf
Ton
1
10
Collector Current (A)


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


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

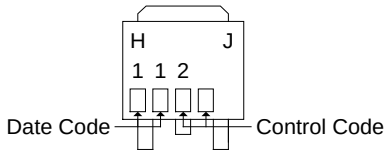

PD - Tc
25
20
15
10
5
0
PD(W) , Power Dissipation
0
50
100
150
200
Temperature-Tc (°C)

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

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