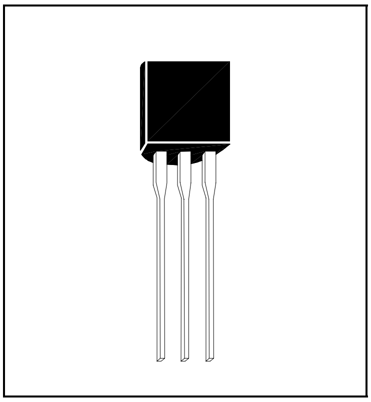
HI-SINCERITY
MICROELECTRONICS CORP.

Spec. No. : HE6401-B
Issued Date : 1998.06.21
Revised Date : 2000.09.20
Page No. : 1/3

HDY227

NPN EPITACIAL PLANAR TRANSISTOR



Description

Low frequency power amplifier.

Absolute Maximum Ratings

- Maximum Temperatures
  Storage Temperature .... -55 ~ +150 °C
  Junction Temperature .... +150 °C Maximum
- Maximum Power Dissipation
  Total Power Dissipation (Ta=25°C) .... 400 mW
- Maximum Voltages and Currents (Ta=25°C)
  VCBO Collector to Base Voltage .... 30 V
  VCEO Collector to Emitter Voltage .... 25 V
  VEBO Emitter to Base Voltage .... 5 V
  IC Collector Current .... 300 mA

Characteristics (Ta=25°C)

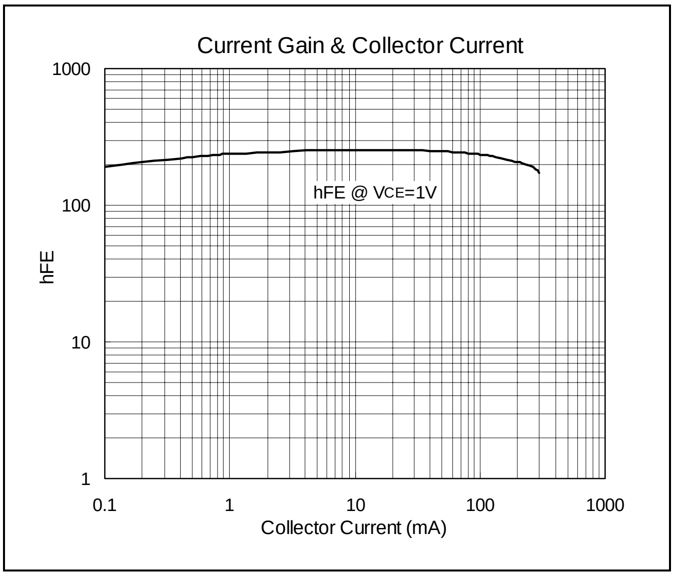
Symbol	Min.	Max.	Unit	Test Conditions
BVCBO	30	-	V	IC=100uA, IE=0
BVCEO	25	-	V	IC=10mA, IB=0
BVEBO	5	-	V	IE=10uA, IC=0
ICBO	-	100	nA	VCB=25V, IE=0
IEBO	-	100	nA	VEB=3V, IC=0
*VCE(sat)	-	400	mV	IC=300mA, IB=30mA
*hFE	70	400	-	IC=50mA, VCE=1V

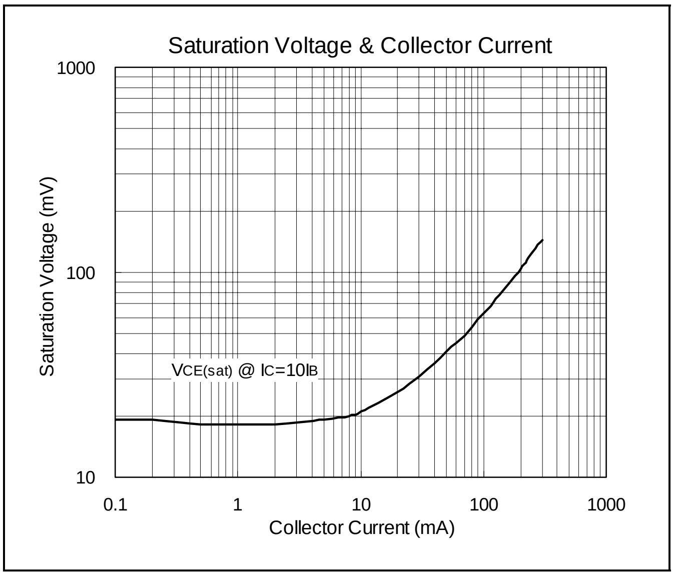
*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

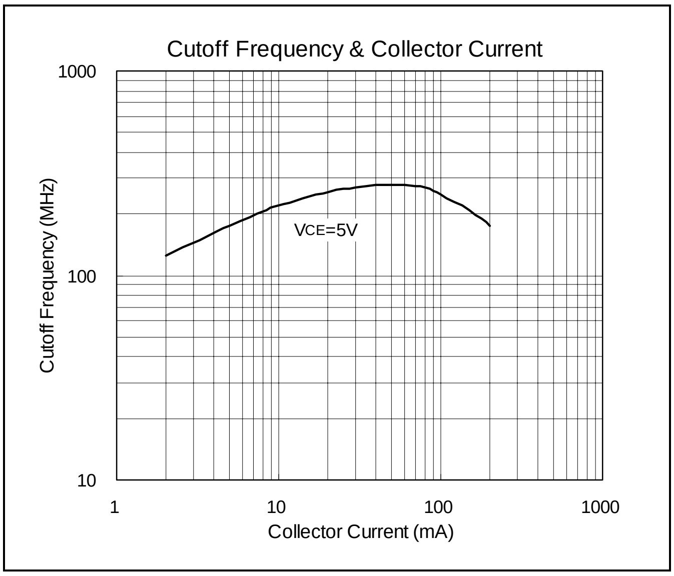
Classification of hFE

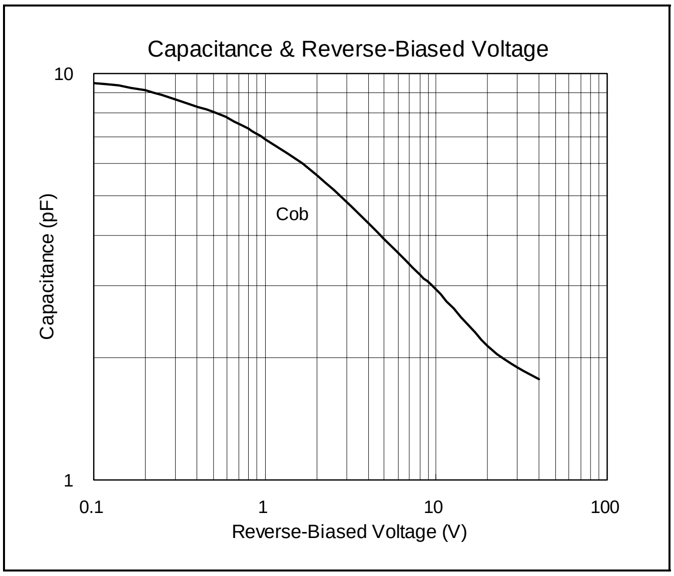
Rank	O	Y	G
hFE	70-140	120-240	200-400

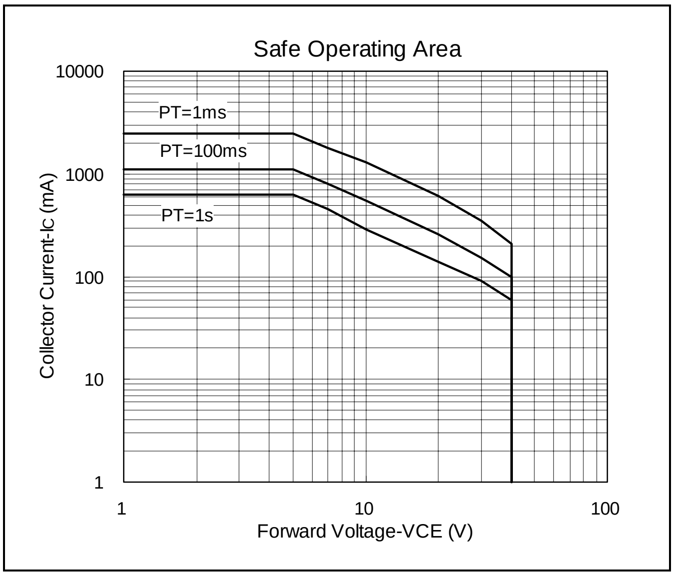
Characteristics Curve

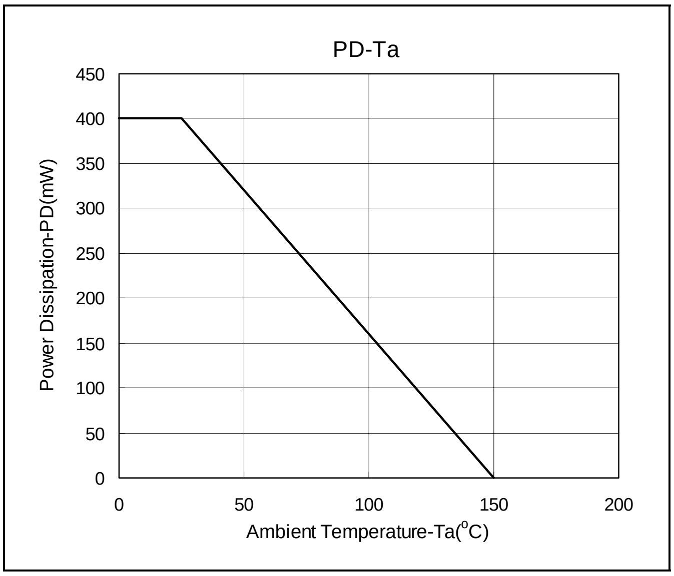

Current Gain & Collector Current


Saturation Voltage & Collector Current

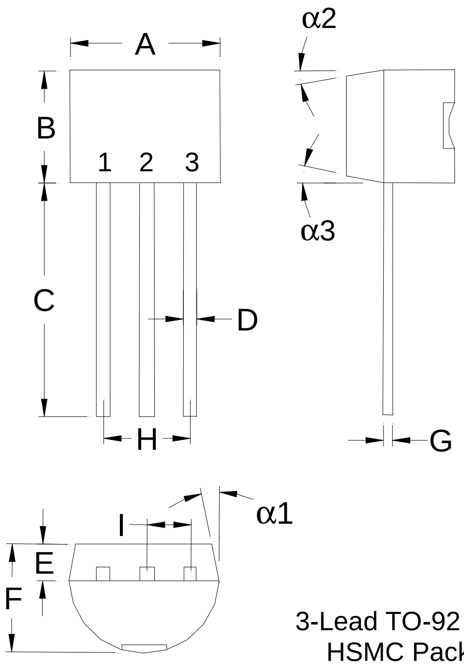

Cutoff Frequency & Collector Current


Capacitance & Reverse-Biased Voltage

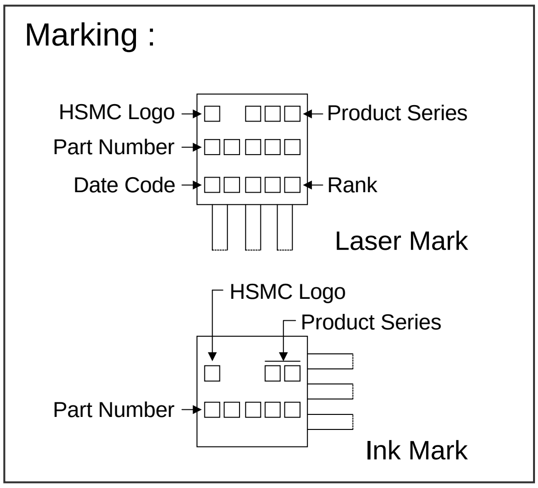

Safe Operating Area


PD-Ta

TO-92 Dimension



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



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

*: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:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of HSMC.
- HSMC reserves the right to make changes to its products without notice.
- ***HSMC semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.***
- HSMC assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

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
- **Factory 2 :** No. 17-1, Ta-Tung Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
  Tel : 886-3-5977061 Fax : 886-3-5979220