

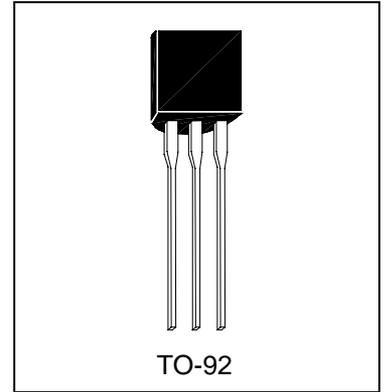


# HSC945

NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The HSC945 is designed for using driver stage of AP amplifier and low speed switching applications.



## Absolute Maximum Ratings

- Maximum Temperatures  
Storage Temperature ..... -50 ~ +150 °C  
Junction Temperature ..... 150 °C Maximum
- Maximum Power Dissipation  
Total Power Dissipation (Ta=25°C) ..... 250 mW
- Maximum Voltages and Currents (Ta=25°C)  
VCBO Collector to Base Voltage ..... 60 V  
VCEO Collector to Emitter Voltage ..... 50 V  
VEBO Emitter to Base Voltage ..... 5 V  
IC Collector Current ..... 100 mA  
IB Base Current ..... 50 mA

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	60	-	-	V	IC=100uA, IE=0
BVCEO	50	-	-	V	IC=1mA, IB=0
BVEBO	5	-	-	V	IE=10uA, IC=0
ICBO	-	-	100	nA	VCB=60V, IE=0
IEBO	-	-	100	nA	VEB=5V, IB=0
*VCE(sat)	-	0.1	0.3	V	IC=100mA, IB=10mA
*hFE1	50	-	-		VCE=6V, IC=0.1mA
*hFE2	135	-	600		VCE=6V, IC=1mA
fT	150	-	600	MHz	VCE=6V, IC=10mA, f=100MHz
Cob	-	-	4	pF	VCB=10V, f=1MHz, IE=0

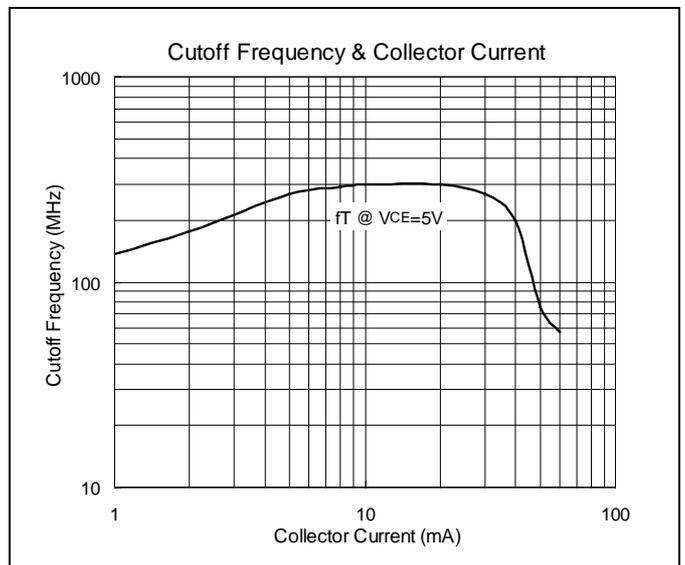
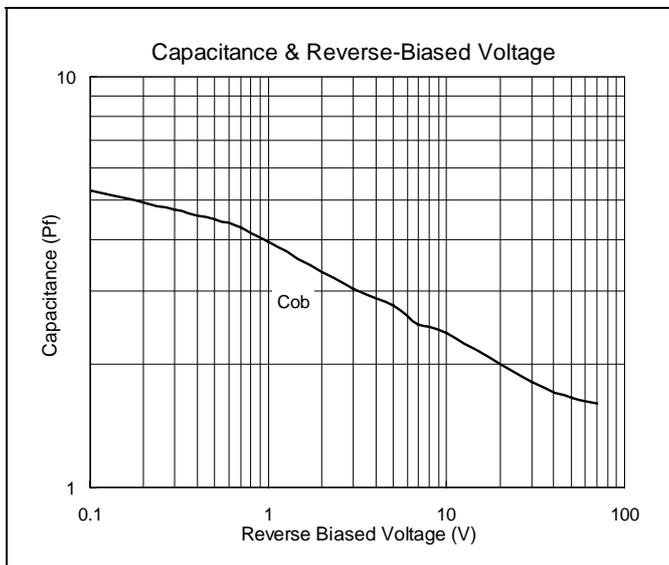
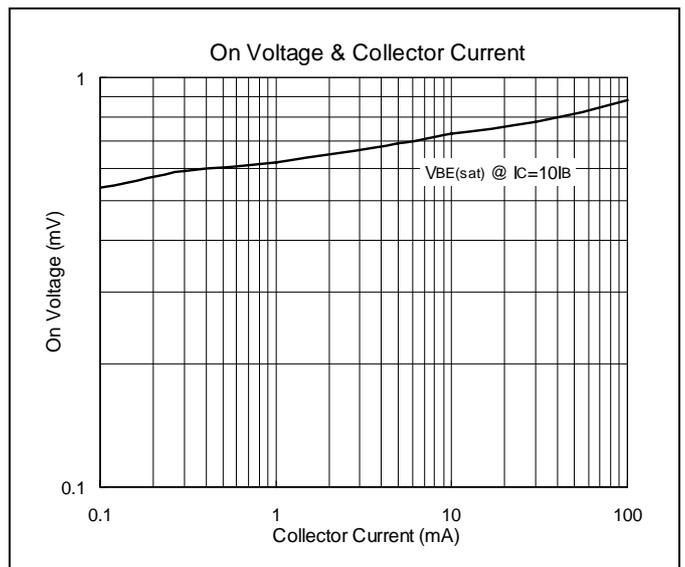
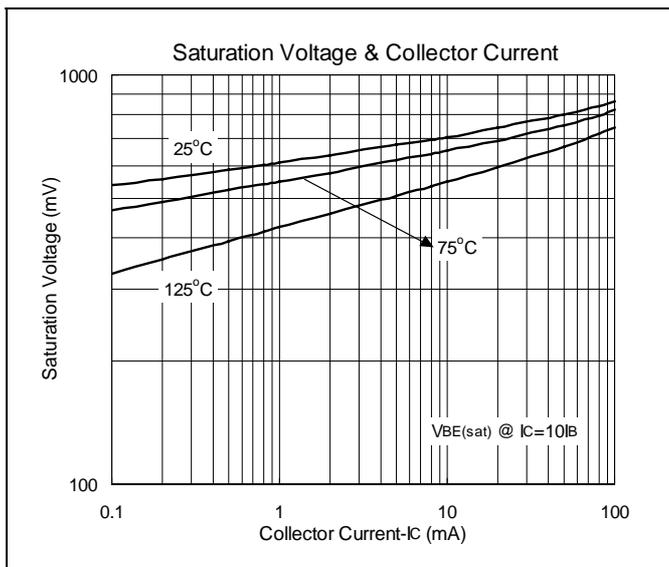
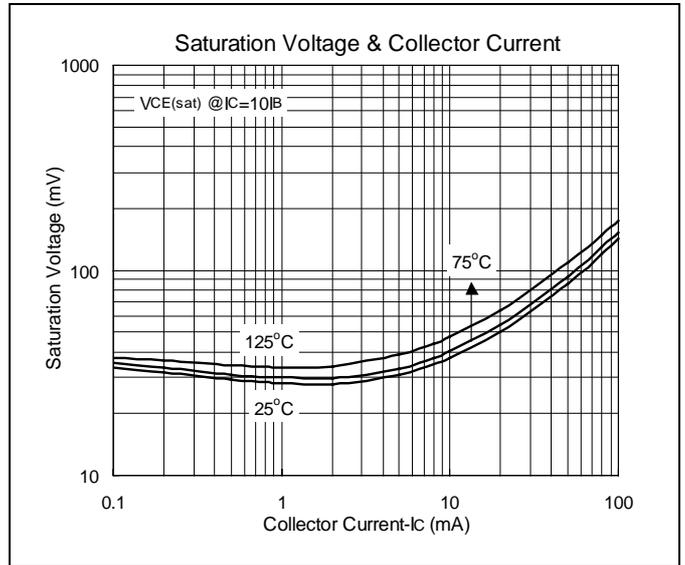
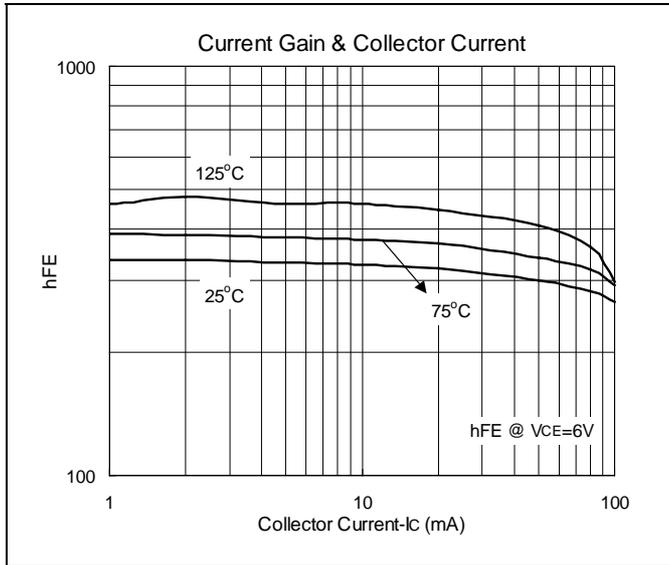
\*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

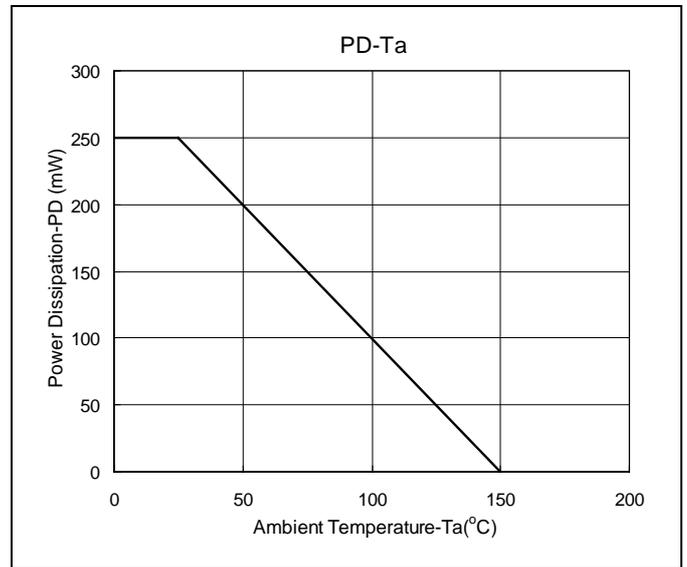
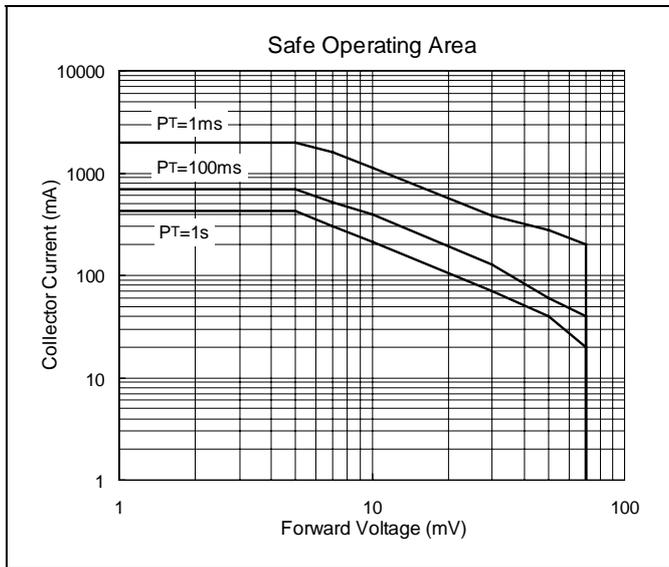
## Classification of hFE2

Rank	Q	P	K
Range	135-270	200-400	300-600



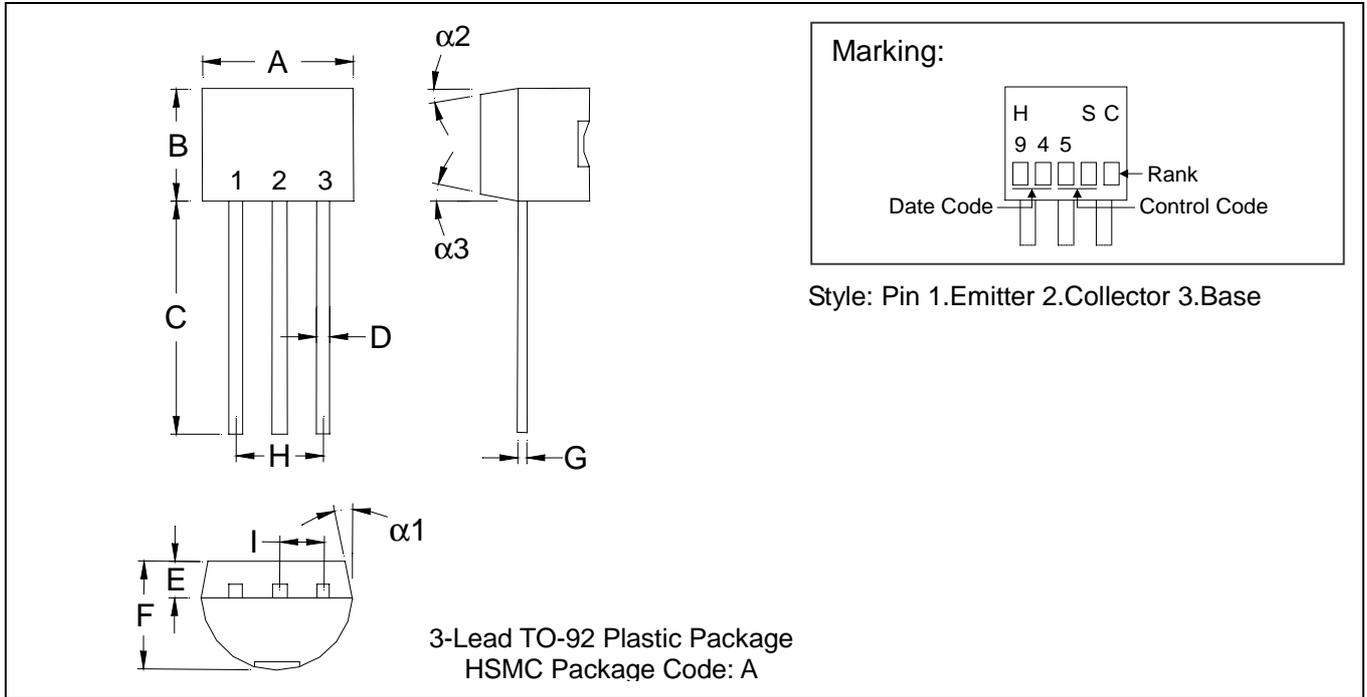
### Characteristics Curve







### TO-92 Dimension



\*: 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	$\alpha 1$	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	$\alpha 2$	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	$\alpha 3$	-	*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

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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