

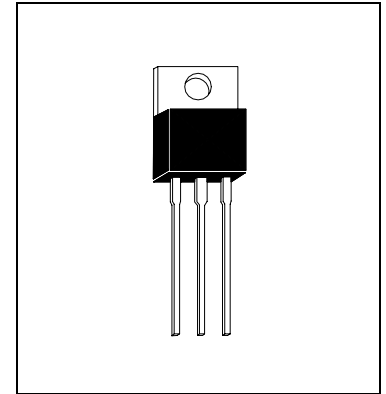


# HSC4242

NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The HSC4242 is designed for triple diffused planar type and high speed switching applications.



## Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
  - Storage Temperature ..... -50 ~ +150 °C
  - Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation
  - Total Power Dissipation (Tc=25°C) ..... 40 W
- Maximum Voltages and Currents
  - BVCBO Collector to Base Voltage ..... 450 V
  - BVCEO Collector to Emitter Voltage ..... 400 V
  - BVEBO Emitter to Base Voltage ..... 10 V
  - IC Collector Current ..... 7 A
  - IB Base Current ..... 2 A

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	450	-	-	V	IC=1mA, IE=0
BVCEO	400	-	-	V	IC=100mA, IB=0
BVEBO	10	-	-	V	IE=1mA, IC=0
ICBO	-	-	100	uA	VCB=450V, IE=0
IEBO	-	-	100	uA	VEB=10V, IC=0
*VCE(sat)	-	-	0.8	V	IC=4A, IB=0.8A
*VBE(sat)	-	-	1.2	V	IC=4A, IB=0.8A
*hFE1	15	-	55		IC=0.8A, VCE=5V
*hFE2	10	-	-		IC=2A, VCE=5V
*hFE3	10	-	-		IC=4A, VCE=5V

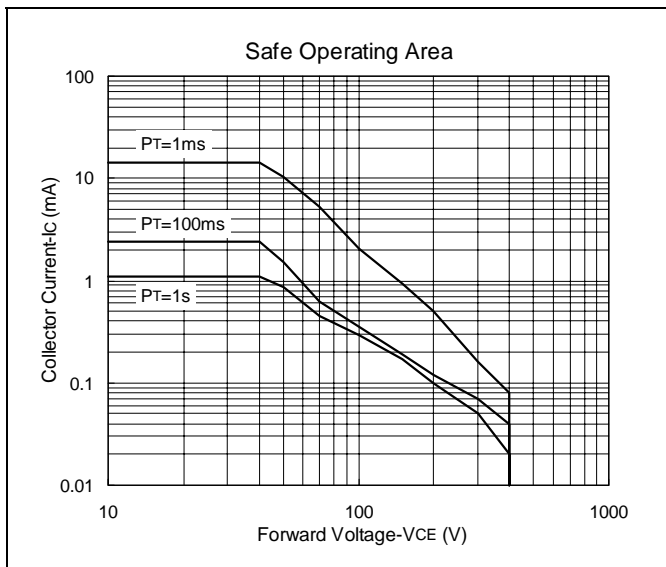
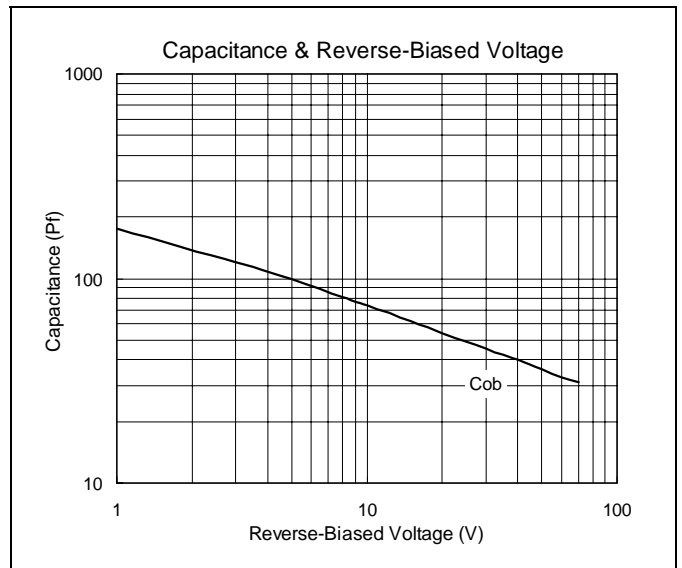
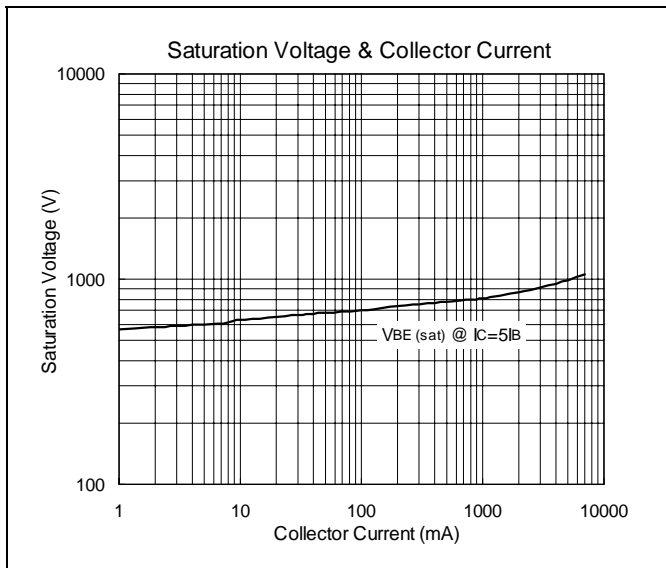
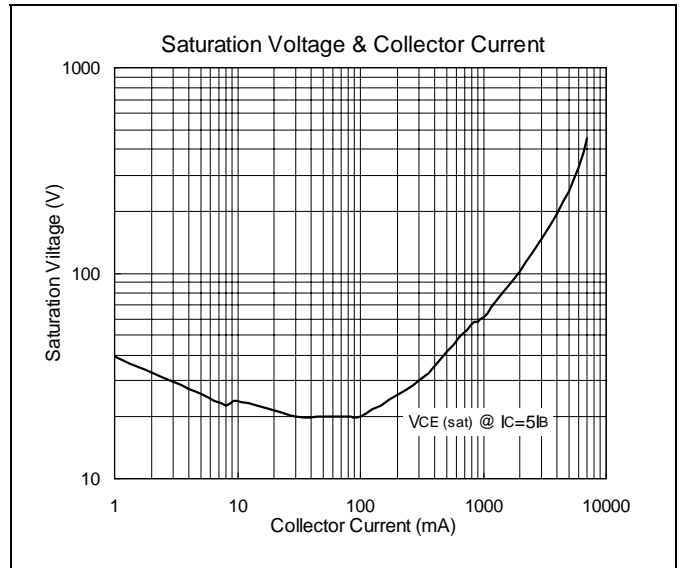
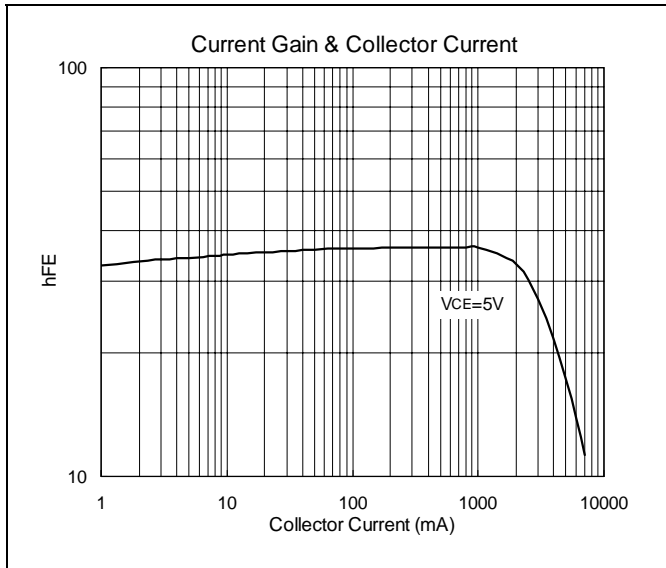
\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

## Classification Of hFE1

Rank	A	B1	B2	B3	B4
Range	15-28	22-35	29-42	36-49	43-55

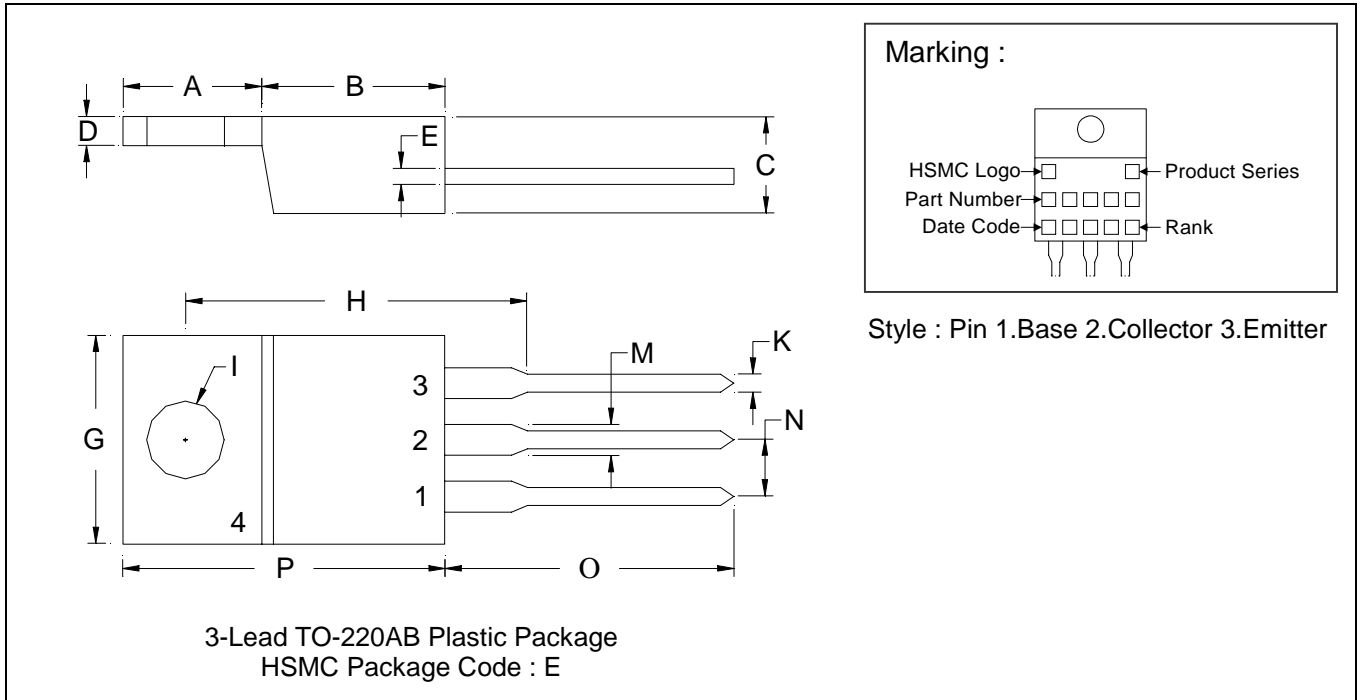


### Characteristics Curve





### TO-220AB Dimension



\*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.2197	0.2949	5.58	7.49	I	-	*0.1508	-	*3.83
B	0.3299	0.3504	8.38	8.90	K	0.0295	0.0374	0.75	0.95
C	0.1732	0.185	4.40	4.70	M	0.0449	0.0551	1.14	1.40
D	0.0453	0.0547	1.15	1.39	N	-	*0.1000	-	*2.54
E	0.0138	0.0236	0.35	0.60	O	0.5000	0.5618	12.70	14.27
G	0.3803	0.4047	9.66	10.28	P	0.5701	0.6248	14.48	15.87
H	-	*0.6398	-	*16.25					

Notes : 1.Dimension and tolerance based on our Spec. dated Sep. 07,1997.  
 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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