

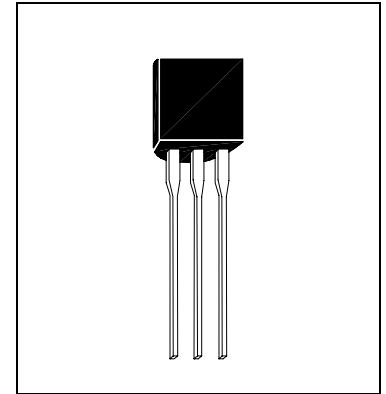


# H2N3417

NPN SILICON TRANSISTOR

## Description

The H2N3417 is a silicon NPN planar epitaxial transistor designed for small signal general purpose and switching applications.



## Absolute Maximum Ratings

- Maximum Temperatures
  - Storage Temperature..... -55 ~ +150 °C
  - Junction Temperature..... +150 °C Maximum
- Maximum Power Dissipation
  - Total Power Dissipation (Ta=25°C) ..... 625 mW
- Maximum Voltages and Currents (Ta=25°C)
  - VCBO Collector to Base Voltage ..... 50 V
  - VCEO Collector to Emitter Voltage ..... 50 V
  - VEBO Emitter to Base Voltage ..... 5 V
  - IC Collector Current ..... 500 mA

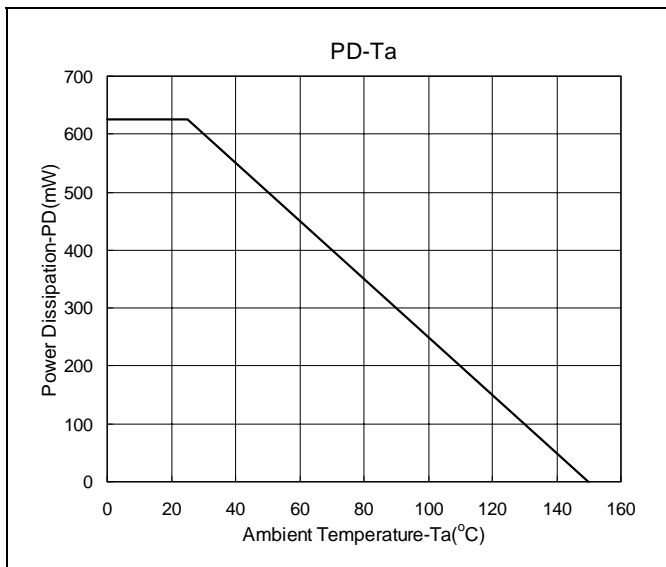
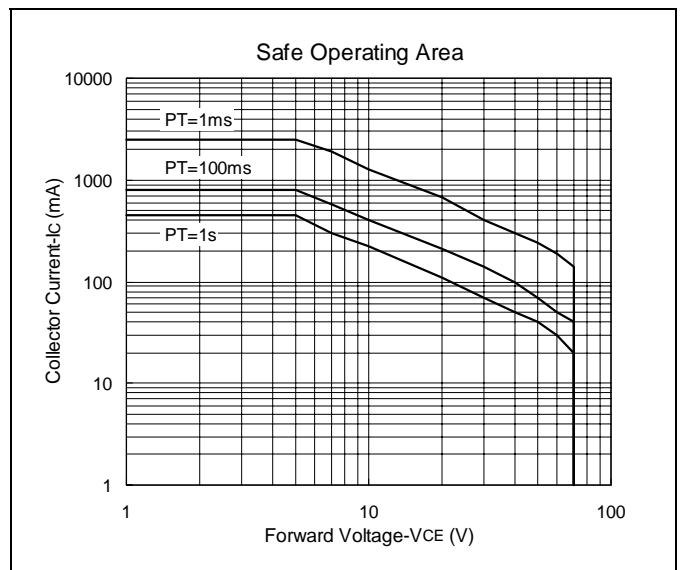
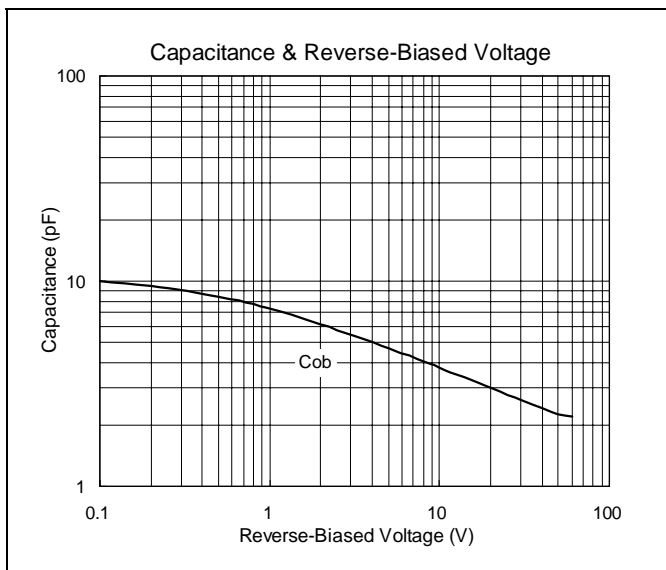
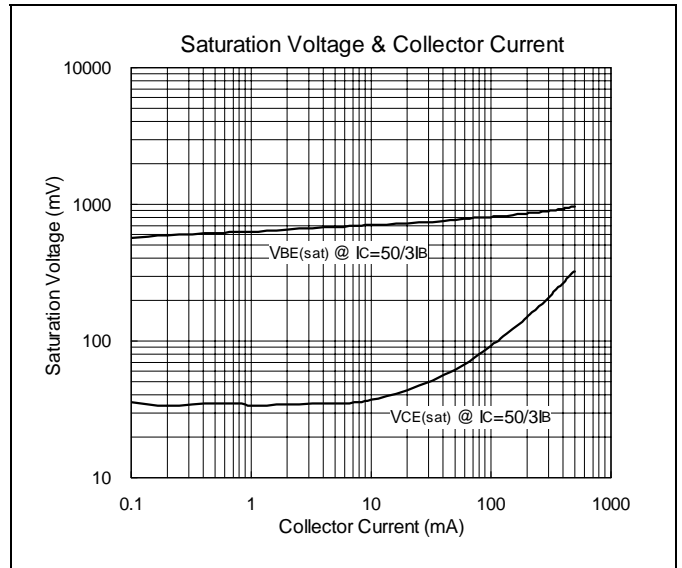
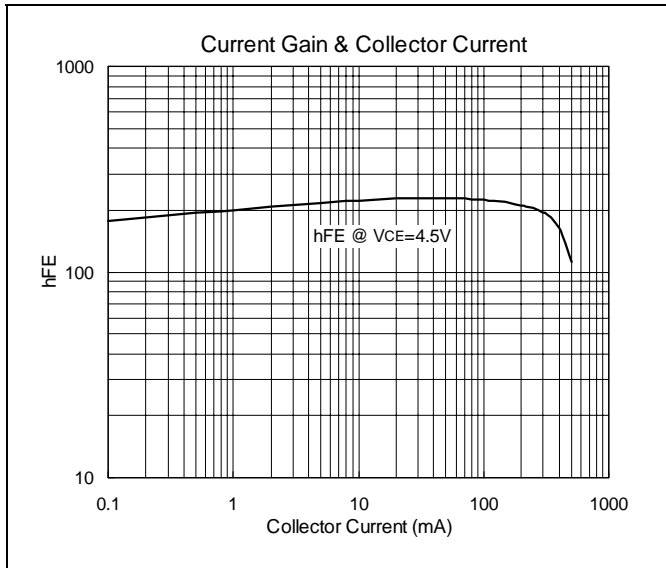
## Characteristics (Ta=25°C)

| Symbol    | Min. | Typ. | Max. | Unit | Test Conditions  |
|-----------|------|------|------|------|------------------|
| BVCBO     | 50   | -    | -    | V    | IC=100uA, IE=0   |
| BVCEO     | 50   | -    | -    | V    | IC=1mA, IB=0     |
| BVEBO     | 5    | -    | -    | V    | IE=10uA, IC=0    |
| ICBO      | -    | -    | 100  | nA   | VCB=50V, IE=0    |
| IEBO      | -    | -    | 100  | nA   | VEB=5V, IC=0     |
| *VCE(sat) | -    | -    | 300  | mV   | IB=3mA, IC=50mA  |
| *VBE(sat) | -    | -    | 850  | mV   | IB=3mA, IC=50mA  |
| *hFE      | 180  | -    | 540  | -    | VCE=4.5V, IC=2mA |

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



### Characteristics Curve





### TO-92 Dimension

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

**Marking :**

HSMC Logo → □ □ □ □ ← Product Series  
 Part Number → □ □ □ □ □ □  
 Date Code → □ □ □ □ □ □ ← Rank  
 Laser Mark

HSMC Logo  
 Product Series  
 Part Number → □ □ □ □ □ □  
 Ink Mark

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

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