

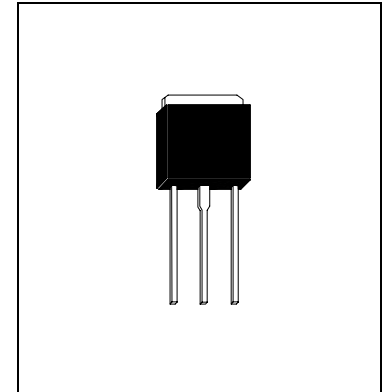


# HTL294MI

PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The HTL294MI is designed for high voltage low power switching applications especially for use in telephone and telecommunication circuits.



## Absolute Maximum Ratings

- Maximum Temperatures
  - Storage Temperature ..... -55 ~ +150 °C
  - Junction Temperature ..... 150 °C Maximum
- Maximum Power Dissipation
  - Total Power Dissipation (Ta=25°C) ..... 1 W
- Maximum Voltages and Currents (Ta=25°C)
  - VCBO Collector to Base Voltage ..... -400 V
  - VCEO Collector to Emitter Voltage ..... -400 V
  - VEBO Emitter to Base Voltage ..... -6 V
  - IC Collector Current ..... -400 mA

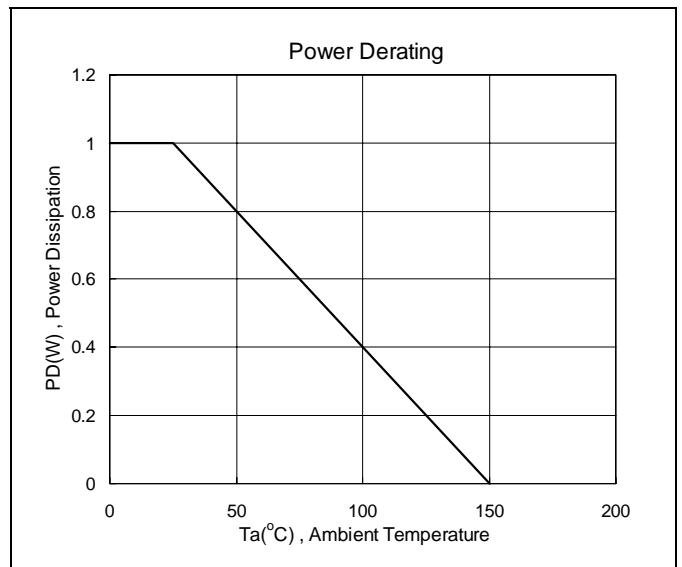
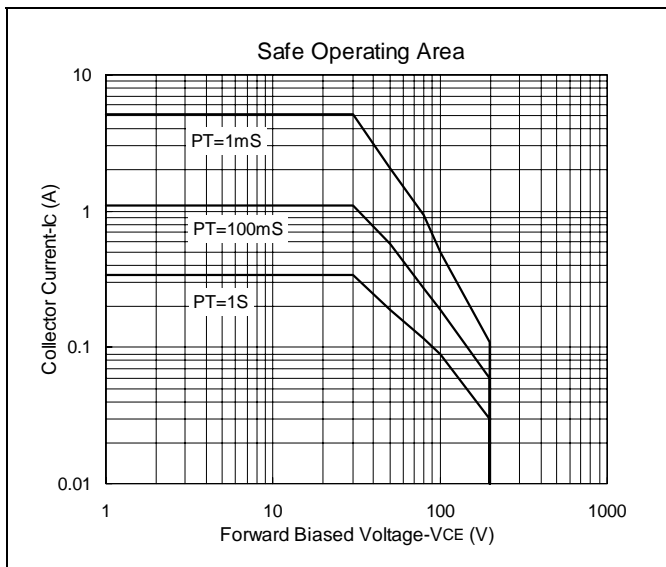
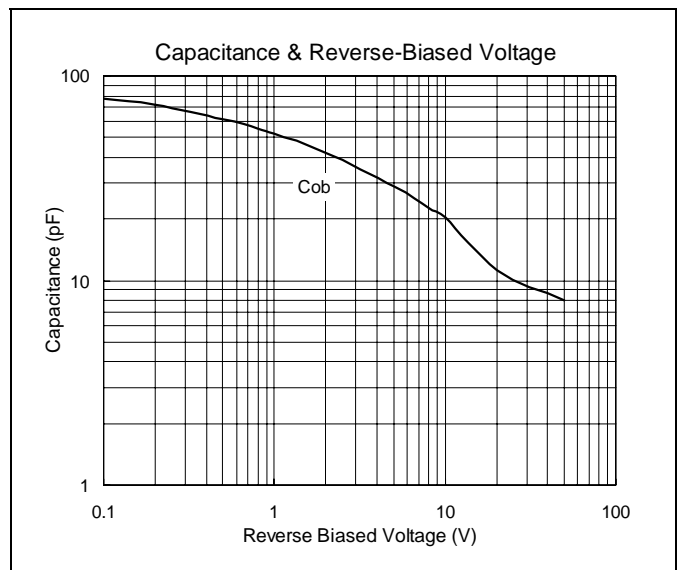
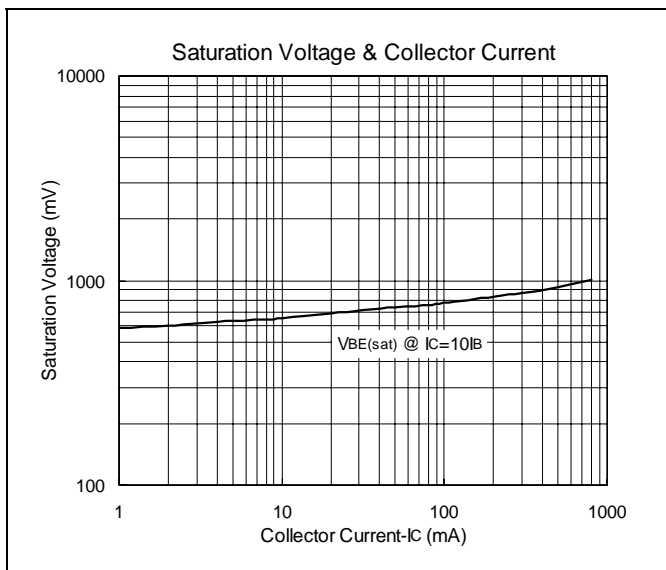
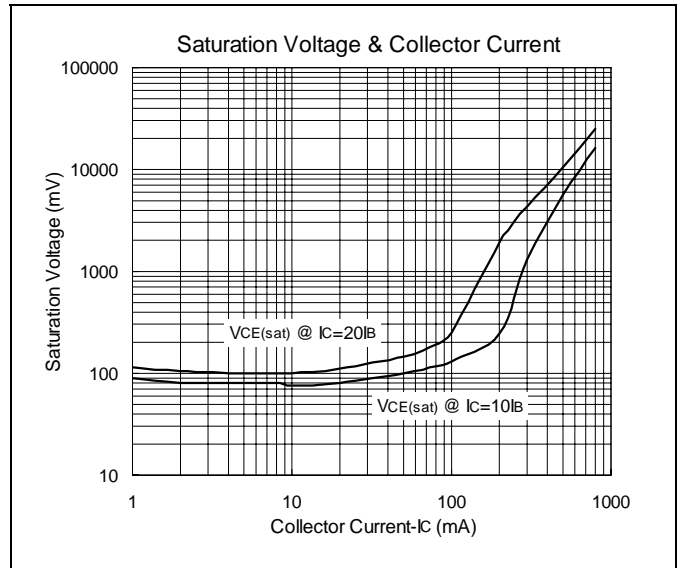
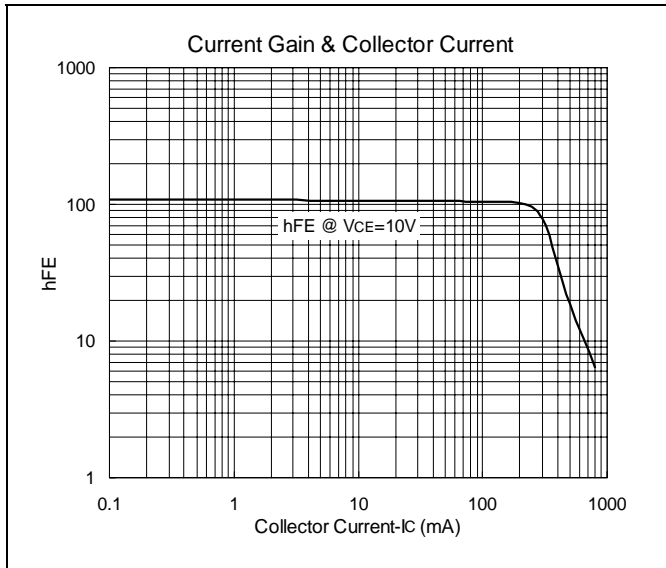
## Characteristics (Ta=25°C)

| Symbol     | Min. | Typ. | Max. | Unit | Test Conditions            |
|------------|------|------|------|------|----------------------------|
| BVCBO      | -400 | -    | -    | V    | IC=-100uA, IE=0            |
| BVCEO      | -400 | -    | -    | V    | IC=-1mA, IB=0              |
| BVEBO      | -6   | -    | -    | V    | IE=10uA                    |
| ICBO       | -    | -    | -1   | uA   | VCB=-400V, IE=0            |
| ICES       | -    | -    | -10  | uA   | VCE=-400V, IE=0            |
| IEBO       | -    | -    | -0.2 | uA   | VEB=-6V, IC=0              |
| *VCE(sat)1 | -    | -    | -200 | mV   | IC=-10mA, IB=-1mA          |
| *VCE(sat)2 | -    | -    | -300 | mV   | IC=-50mA, IB=-5mA          |
| *VCE(sat)3 | -    | -    | -1.2 | V    | IC=-80mA, IB=-4mA          |
| *VBE(sat)  | -    | -    | -750 | mV   | IC=-10mA, IB=-1mA          |
| *hFE1      | 50   | -    | -    |      | VCE=-10V, IC=-1mA          |
| *hFE2      | 60   | -    | 250  |      | VCE=-10V, IC=-20mA         |
| *hFE3      | 50   | -    | -    |      | VCE=-10V, IC=-80mA         |
| fT         | 30   | -    | -    | MHz  | VCE=-20V, IE=-10mA, f=1MHz |
| Cob        | -    | -    | 30   | pF   | VCB=-20V, f=1MHz, IE=0     |

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

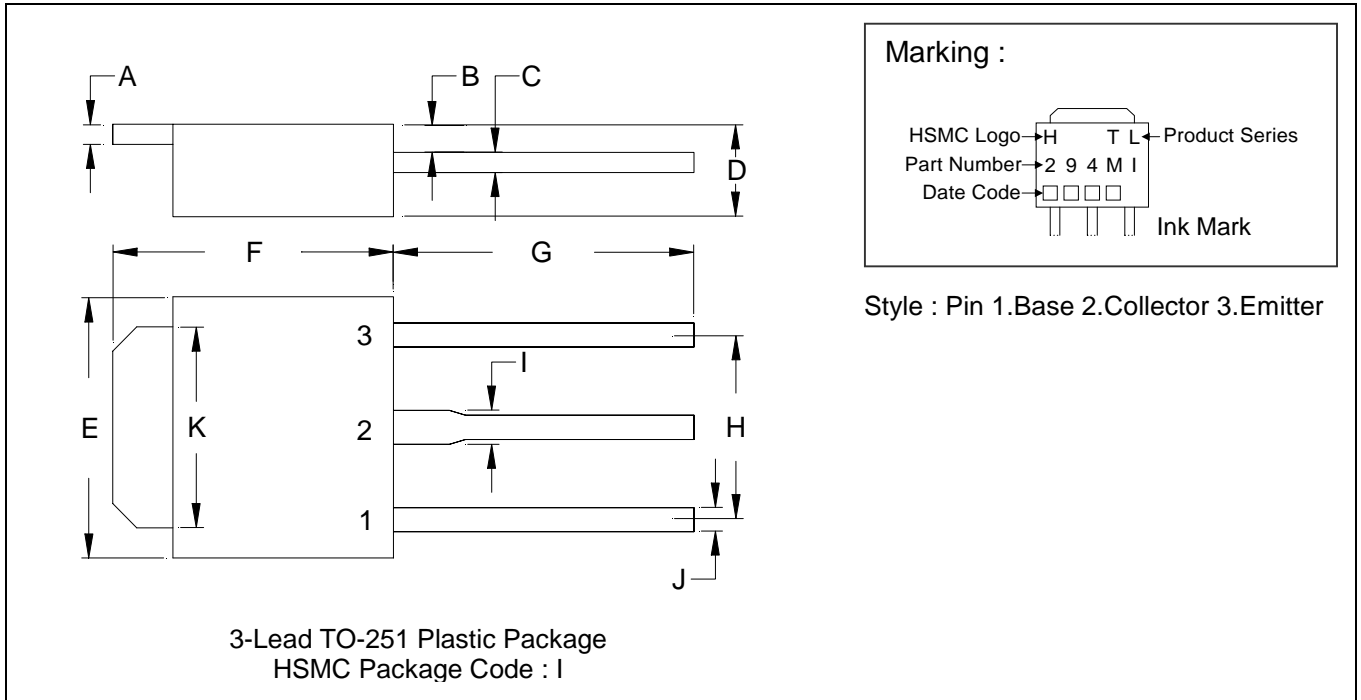


### Characteristics Curve





### TO-251 Dimension



\*: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   | 0.2559 | -       | 6.50        | -     |
| B   | 0.0354 | 0.0591 | 0.90        | 1.50 | H   | -      | *0.1811 | -           | *4.60 |
| C   | 0.0177 | 0.0236 | 0.45        | 0.60 | I   | -      | 0.0354  | -           | 0.90  |
| D   | 0.0866 | 0.0945 | 2.20        | 2.40 | J   | -      | 0.0315  | -           | 0.80  |
| E   | 0.2520 | 0.2677 | 6.40        | 6.80 | K   | 0.2047 | 0.2165  | 5.20        | 5.50  |
| F   | 0.2677 | 0.2835 | 6.80        | 7.20 |     |        |         |             |       |

**Notes :** 1.Dimension and tolerance based on our Spec. dated May. 24,1995.  
 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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