



HI122

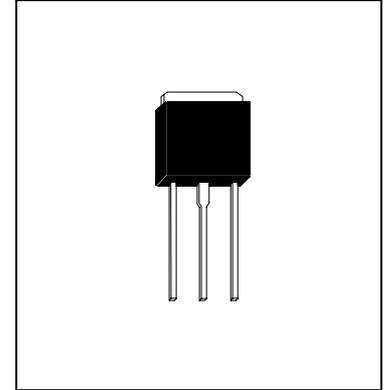
NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HI122 is designed of general purpose and low speed switching applications.

Features

- High DC current gain
- Bult-in a damper diode at E-C



Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
Storage Temperature -55~+150°C
Junction Temperature +150°C
- Maximum Power Dissipation
Total Power Dissipation (Tc=25°C) 20W
- Maximum Voltages and Currents
BVCBO Collector to Base Voltage 100 V
BVCEO Collector to Emitter Voltage 100 V
BVEBO Emitter to Base Voltage 5 V
IC Collector Current 8 A

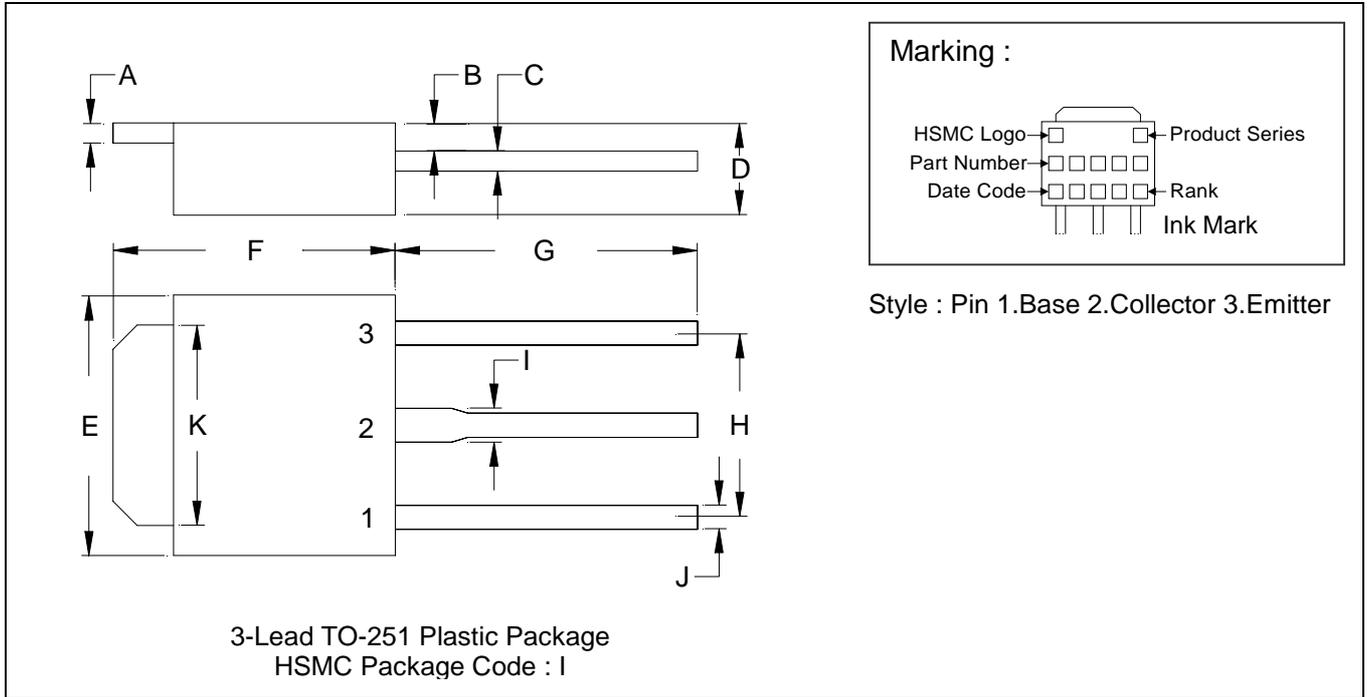
Characteristics (Ta=25°C)

| Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|------------|------|------|------|------|-----------------|
| BVCBO | 100 | - | - | V | IC=1mA |
| BVCEO | 100 | - | - | V | IC=30mA |
| BVEBO | 5 | - | - | V | IE=1mA |
| ICBO | - | - | 10 | uA | VCB=100V |
| ICEO | - | - | 10 | uA | VCE=50V |
| IEBO | - | - | 2 | mA | VEB=5V |
| *VCE(sat)1 | - | - | 2 | V | IC=4A, IB=16mA |
| *VCE(sat)2 | - | - | 4 | V | IC=8A, IB=80mA |
| *VBE(sat) | - | - | 4.5 | V | IC=8A, IB=80mA |
| *VBE(on) | - | - | 2.8 | V | VCE=4V, IC=4A |
| *hFE1 | 1K | - | 12K | | VCE=4V, IC=4A |
| *hFE2 | 100 | - | - | | VCE=4V, IC=8A |
| Cob | - | 130 | - | pF | VCB=10V, f=1MHz |

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



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

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