



HBD678

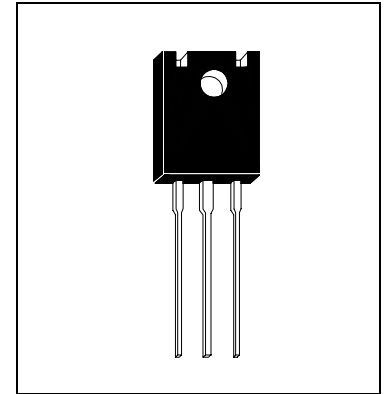
NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HBD678 is designed for use as output devices in complementary general purpose amplifier applications.

Features

- High Current Gain
- Monolithic Constructor



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 60 V
BVCEO Collector to Emitter Voltage 60 V
BVEBO Emitter to Base Voltage 5 V
IC Collector Current 4 A
IB Base Current 1 A

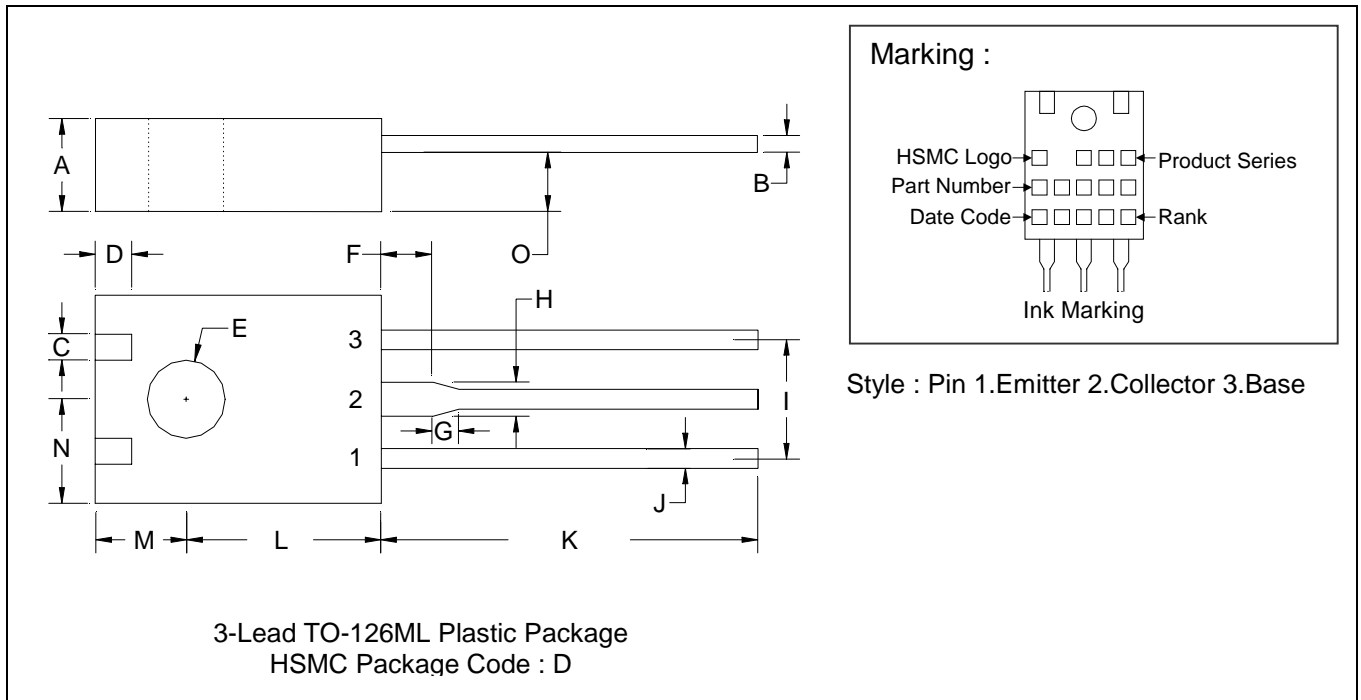
Electrical Characteristics (Ta=25°C)

| Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|-----------|------|------|------|------|------------------|
| BVCBO | 60 | - | - | V | IC=1mA |
| BVCEO | 60 | - | - | V | IC=50mA |
| BVEBO | 5 | - | - | V | IE=1mA |
| ICEO | - | - | 200 | uA | VCB=30V |
| ICBO | - | - | 200 | uA | VCB=60V |
| IEBO | - | - | 2 | mA | VBE=5V |
| *VCE(sat) | - | - | 2.5 | V | IC=1.5A, IB=30mA |
| *VBE(on) | - | - | 2.5 | V | IC=1.5A, VCE=3V |
| *hFE | 750 | - | - | | IC=1.5A, VCE=3V |

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



TO-126ML Dimension



*:Typical

| DIM | Inches | | Millimeters | | DIM | Inches | | Millimeters | |
|-----|--------|--------|-------------|------|-----|--------|---------|-------------|-------|
| | Min. | Max. | Min. | Max. | | Min. | Max. | Min. | Max. |
| A | 0.1356 | 0.1457 | 3.44 | 3.70 | I | - | *0.1795 | - | *4.56 |
| B | 0.0170 | 0.0272 | 0.43 | 0.69 | J | 0.0268 | 0.0331 | 0.68 | 0.84 |
| C | 0.0344 | 0.0444 | 0.87 | 1.12 | K | 0.5512 | 0.5906 | 14.00 | 15.00 |
| D | 0.0501 | 0.0601 | 1.27 | 1.52 | L | 0.2903 | 0.3003 | 7.37 | 7.62 |
| E | 0.1131 | 0.1231 | 2.87 | 3.12 | M | 0.1378 | 0.1478 | 3.50 | 3.75 |
| F | 0.0737 | 0.0837 | 1.87 | 2.12 | N | 0.1525 | 0.1625 | 3.87 | 4.12 |
| G | 0.0294 | 0.0494 | 0.74 | 1.25 | O | 0.0740 | 0.0842 | 1.88 | 2.14 |
| H | 0.0462 | 0.0562 | 1.17 | 1.42 | | | | | |

Notes : 1.Dimension and tolerance based on our Spec. dated Mar. 6,1995.
 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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