



# HBF4522D

NPN TRIPLE DIFFUSION PLANAR TRANSISTOR

## Description

HBF4522D is designed for use in the monitor dynamic focus circuit. It can be used up to 19" monitor with working frequency as high as 100KHz.

## Features

- High Breakdown Voltage
- Low C-E Saturation Voltage
- High Cutoff Frequency
- High Current Gain

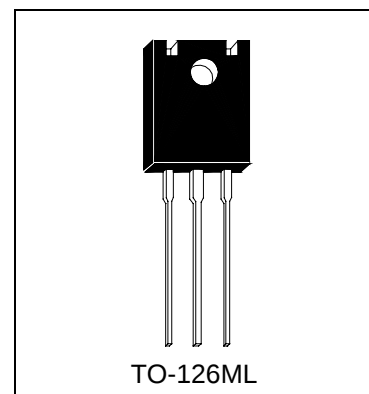
## Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures  
Storage Temperature ..... -50 ~ +150 °C  
Junction Temperature ..... +150 °C
- Maximum Power Dissipation  
Total Power Dissipation (Ta=25°C)..... 1.5 W  
Total Power Dissipation (Tc=25°C) ..... 20 W
- Maximum Voltages and Currents  
BVCEO Collector to Base Voltage..... 550 V  
BVCEO Collector to Emitter Voltage..... 550 V  
BVEBO Emitter to Base Voltage..... 5 V  
IC Collector Current..... 100 mA  
IB Base Current..... 20 mA

## Electrical Characteristics (Ta=25°C)

| Symbol    | Min. | Typ. | Max. | Unit | Test Conditions                |
|-----------|------|------|------|------|--------------------------------|
| BVCEO     | 550  | -    | -    | V    | IC=1mA                         |
| BVCBO     | 550  | -    | -    | V    | IC=100uA                       |
| BVEBO     | 7    | -    | -    | V    | IE=10uA,                       |
| ICBO      | -    | -    | 1    | uA   | VCB=500V                       |
| IEBO      | -    | -    | 100  | nA   | VEB=5V                         |
| *VCE(sat) | -    | 0.35 | 0.5  | V    | IC=30mA, IB=3mA                |
| *hFE      | 100  | 150  | 200  |      | VCE=20V, IC=30mA               |
| fT        | 90   | -    | -    | MHz  | VCE=10V, IE=30mA, ftest=100MHz |

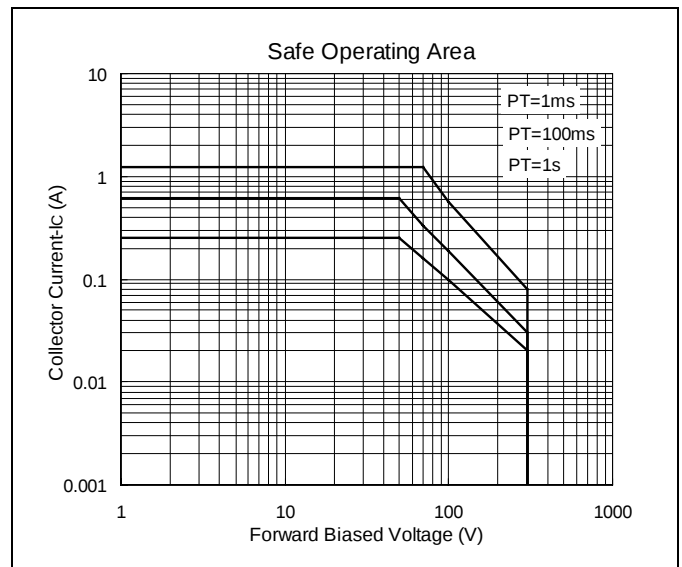
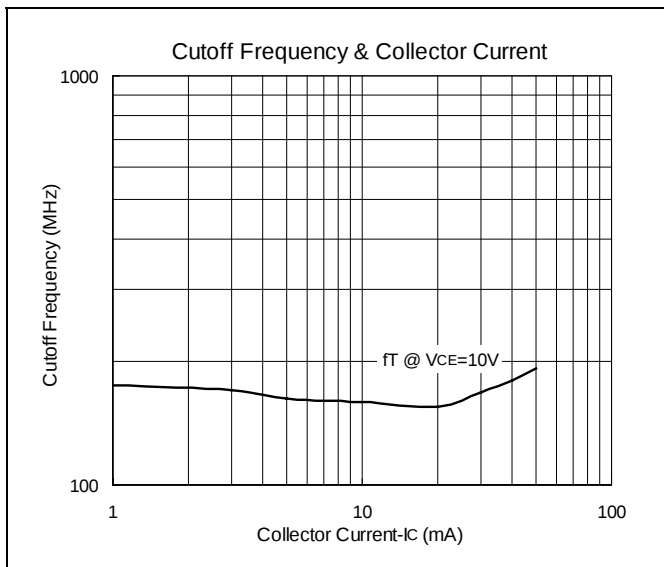
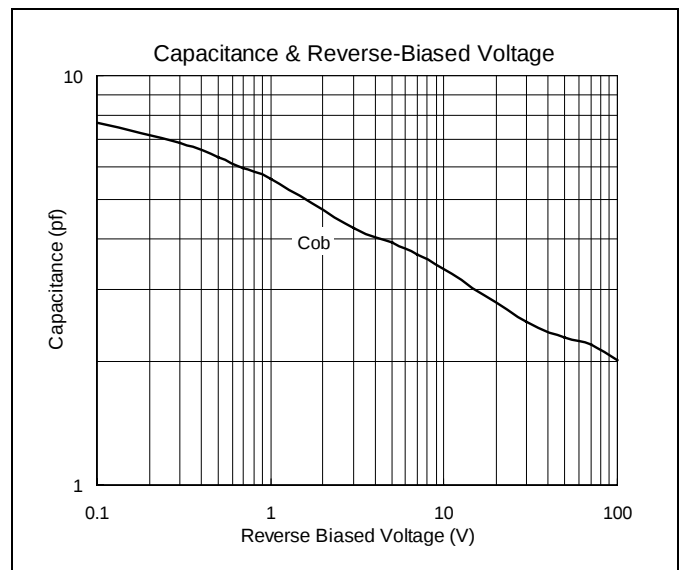
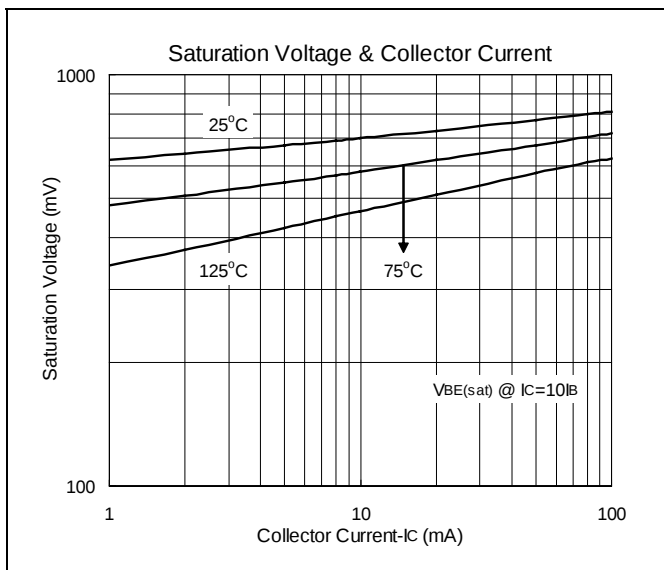
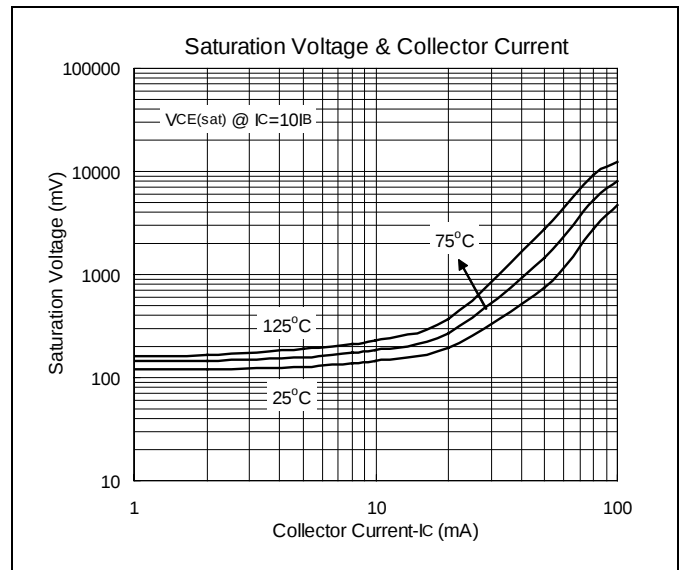
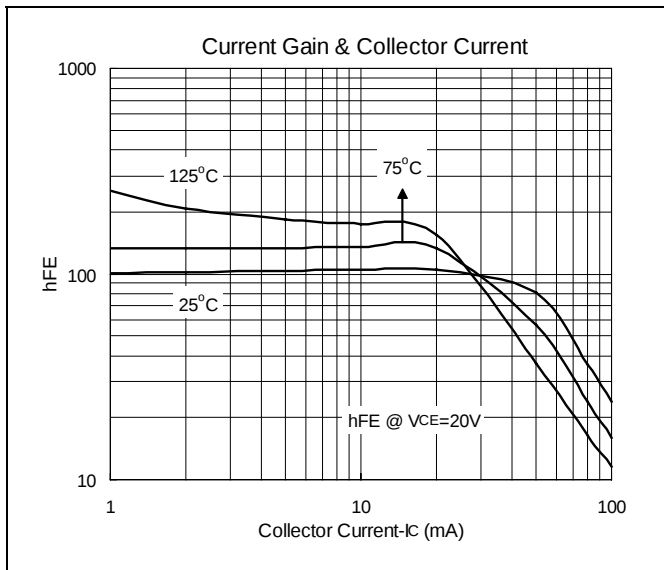
\*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%



TO-126ML

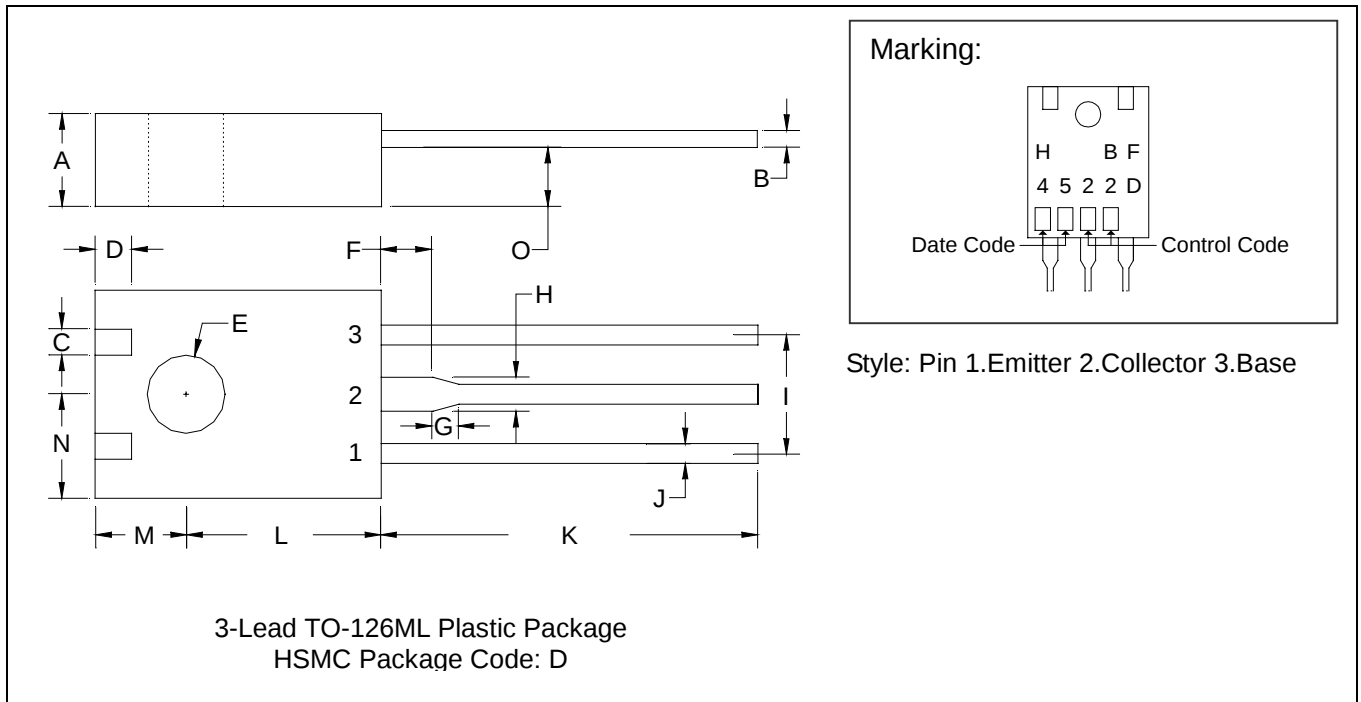


### Characteristics Curve





### 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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