



HMP5A93

PNP EPITAXIAL PLANAR TRANSISTOR

Description

The HMP5A93 is designed for application as a video output to drive color CRT, or as a dialer circuit in electronics telephone.

Features

- High Collector-Emitter Breakdown Voltage
- Low Collector-Emitter Saturation Voltage
- For Complementary Use with NPN Type HMP5A43



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 -200 V
 VCEO Collector to Emitter Voltage..... -200 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 | -200 | - | - | V | IC=-100uA, IE=0 |
| BVCEO | -200 | - | - | V | IC=-1mA, IB=0 |
| BVEBO | -5 | - | - | V | IE=-10uA, IC=0 |
| ICBO | - | - | -100 | nA | VCB=-160V, IE=0 |
| IEBO | - | - | -100 | nA | VEB=-3V, IC=0 |
| *VCE(sat) | - | - | -350 | mV | IC=-20mA, IB=-2mA |
| *VBE(sat) | - | - | -900 | mV | IC=-20mA, IB=-2mA |
| *hFE1 | 25 | - | - | | IC=-1mA, VCE=-10V |
| *hFE2 | 40 | - | - | | IC=-10mA, VCE=-10V |
| *hFE3 | 40 | - | - | | IC=-30mA, VCE=-10V |
| *hFE4 | - | 100 | - | | IC=-80mA, VCE=-10V |
| fT | 50 | - | - | MHz | IC=-10mA, VCE=-20V, f=100MHZ |
| Cob | - | - | 8 | pF | VCB=-20V, f=1MHz, IE=0 |

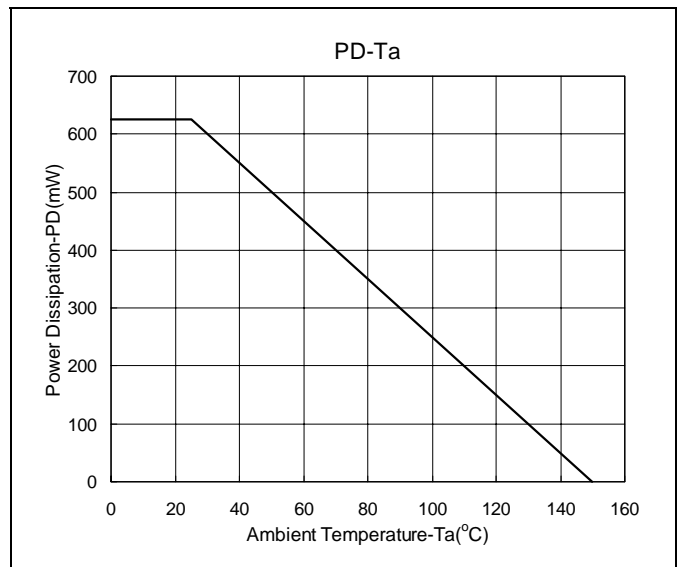
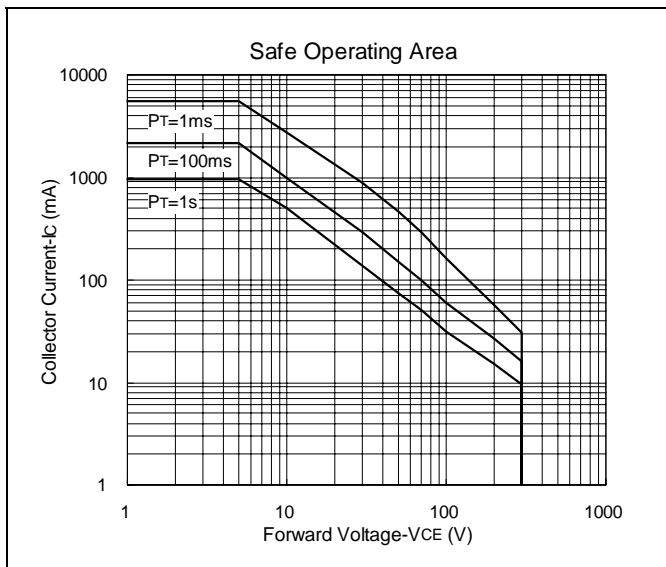
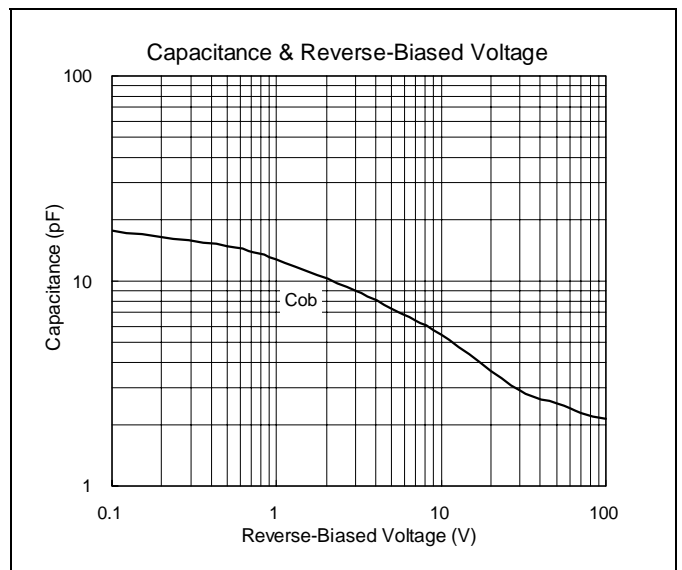
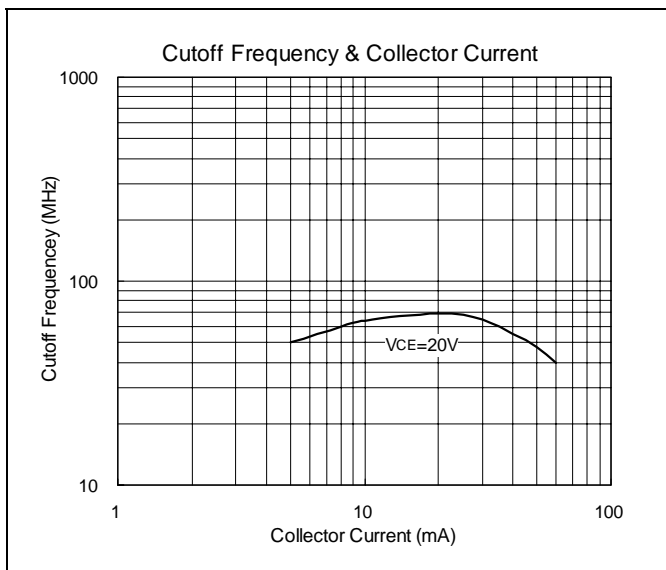
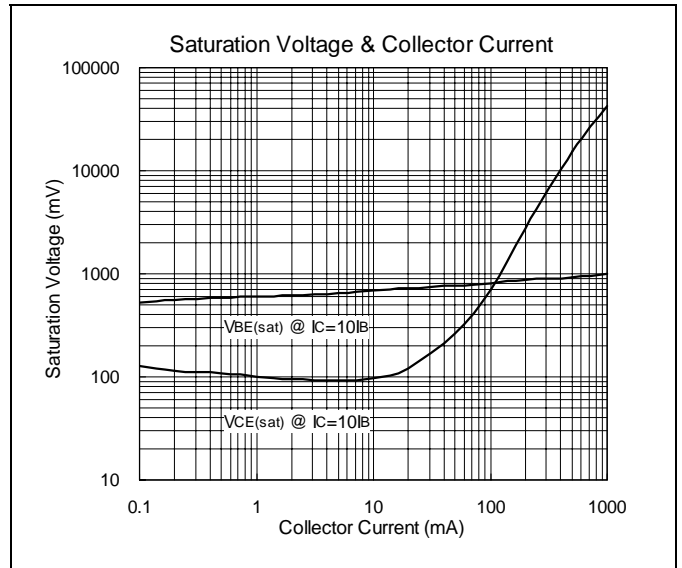
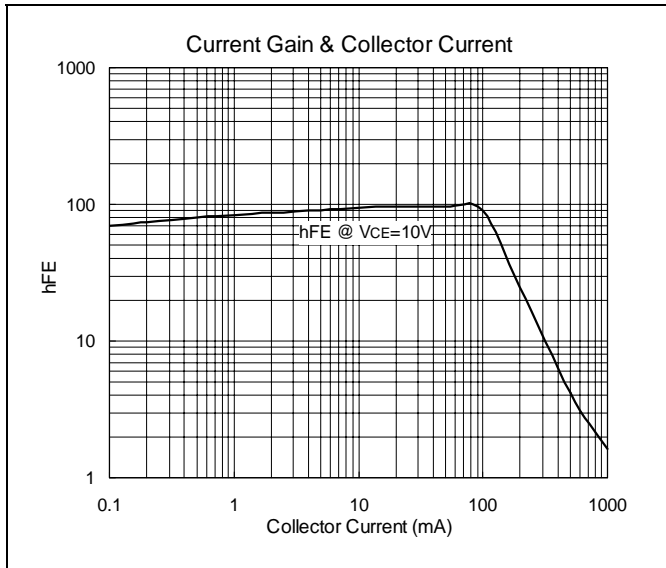
*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

Classification Of hFE2 & VCE(sat)

| Rank | hFE1 | hFE2 | hFE3 | hFE4 | VCE(sat) |
|------|------|------|------|------|----------|
| NS | >60 | >80 | >80 | >80 | <200mV |
| N | >25 | >40 | >40 | - | <350mV |

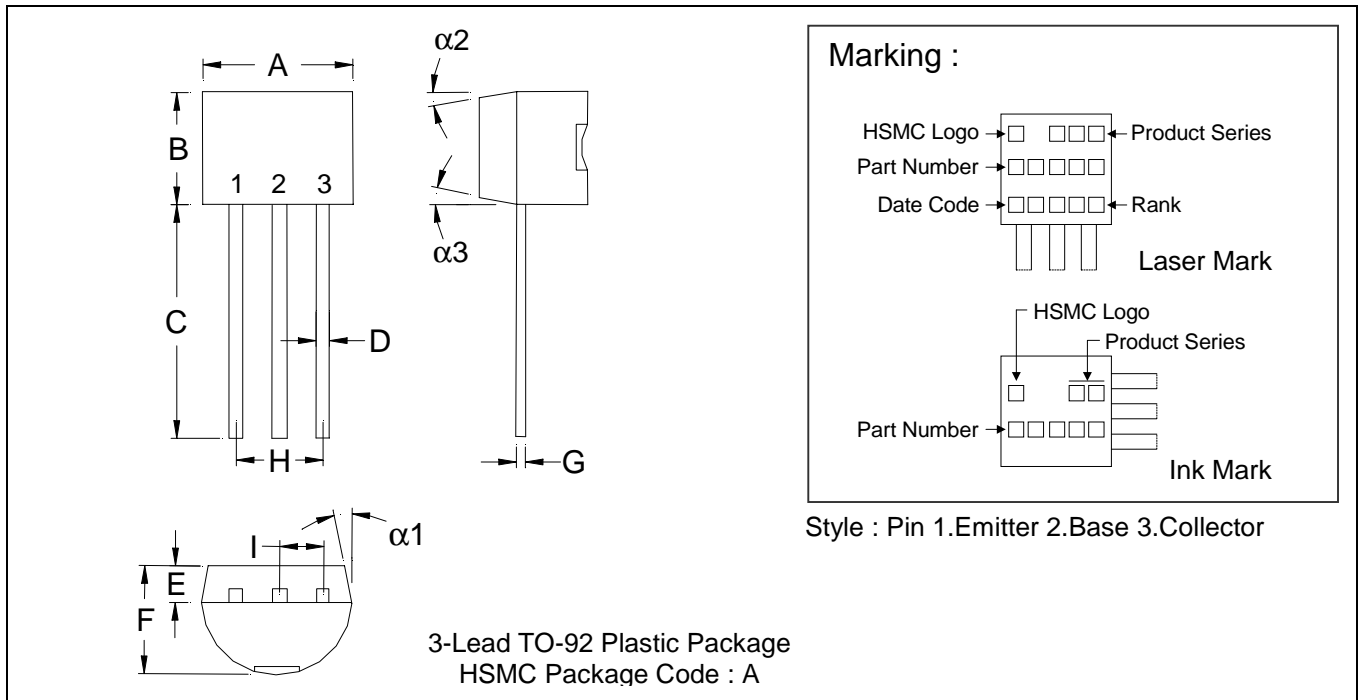


Characteristics Curve





TO-92 Dimension



*: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 | $\alpha 1$ | - | *5° | - | *5° |
| E | - | *0.0500 | - | *1.27 | $\alpha 2$ | - | *2° | - | *2° |
| F | 0.1323 | 0.1480 | 3.36 | 3.76 | $\alpha 3$ | - | *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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