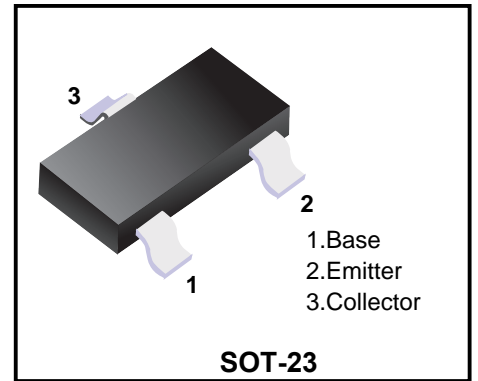


PNP Transistors

Features

- High voltage transistor
- Low collector-emitter saturation voltage
- Complementary to MMBTA42 (NPN)



Absolute Maximum Ratings (Ta=25°C)

| Parameter | Symbol | Rating | Unit |
|--|------------------|------------|------|
| Collector - Base Voltage | V _{CB0} | -300 | V |
| Collector - Emitter Voltage | V _{CE0} | -300 | |
| Emitter - Base Voltage | V _{EB0} | -5 | |
| Collector Current - Continuous | I _c | -500 | mA |
| Collector Power Dissipation | P _c | 350 | mW |
| Thermal Resistance Junction to Ambient | R _{θJA} | 417 | °C/W |
| Junction Temperature | T _J | 150 | °C |
| Storage Temperature range | T _{stg} | -55 to 150 | |

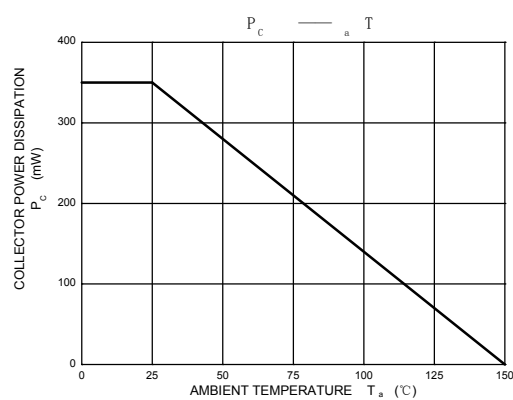
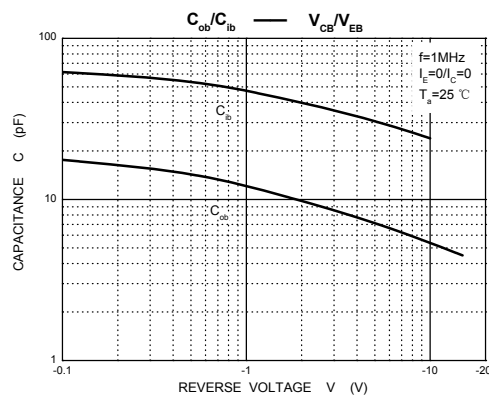
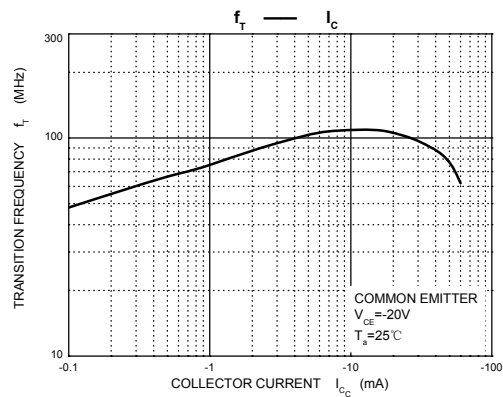
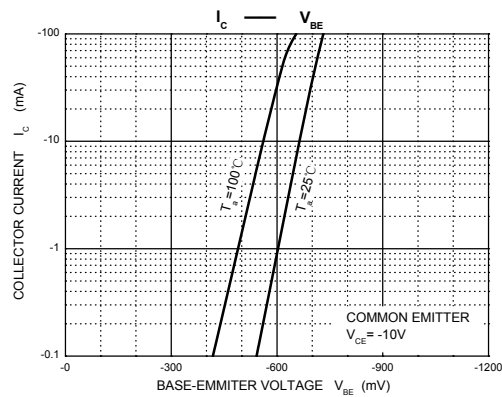
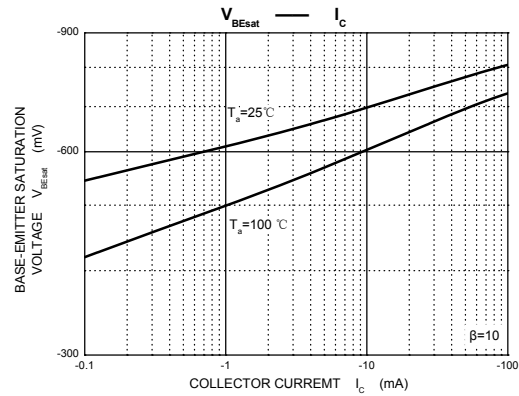
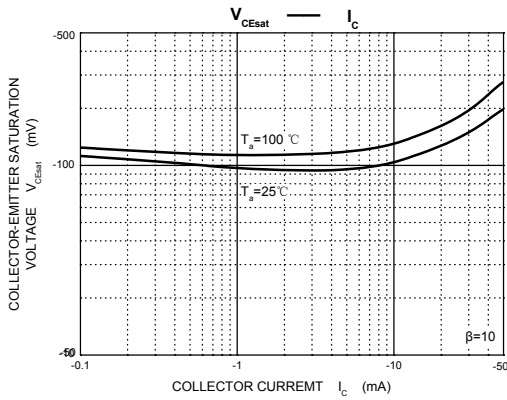
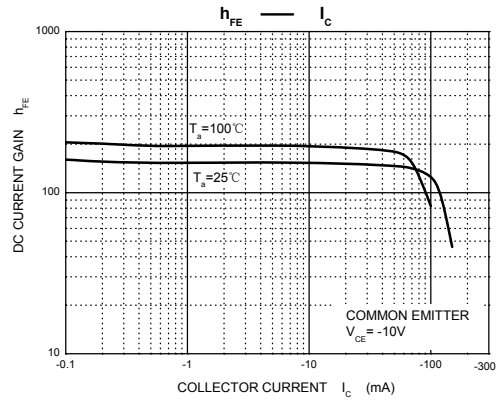
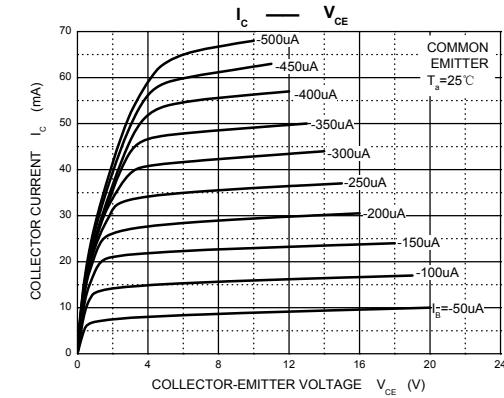
Electrical Characteristics (Ta=25°C unless otherwise specified.)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|---|------|-----|-------|------|
| Collector- base breakdown voltage | V _{CB0} | I _c = -100 μA, I _E =0 | -300 | | | V |
| Collector- emitter breakdown voltage | V _{CE0} | I _c = -1 mA, I _B =0 | -300 | | | |
| Emitter - base breakdown voltage | V _{EB0} | I _E = -100 μA, I _C =0 | -5 | | | |
| Collector-base cut-off current | I _{CB0} | V _{CB} = -200 V, I _E =0 | | | -0.25 | μA |
| Emitter cut-off current | I _{EB0} | V _{EB} = -5V, I _C =0 | | | -0.1 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =-20 mA, I _B = -2mA | | | -0.2 | V |
| Base - emitter saturation voltage | V _{BE(sat)} | I _C = -20mA, I _B = -2mA | | | -0.9 | |
| DC current gain | h _{fe} (1) | V _{CE} = -10V, I _C = -1mA | 60 | | | |
| | h _{fe} (2) | V _{CE} = -10V, I _C = -10mA | 100 | | 300 | |
| | h _{fe} (3) | V _{CE} = -10V, I _C =-30mA | 60 | | | |
| Transition frequency | f _T | V _{CE} = -20V, I _C = -10mA, f=30MHz | 50 | | | MHz |

hFE Classification

| Type | MMBTA92 | MMBTA92-L |
|---------|---------|-----------|
| Range | 100-300 | 100-200 |
| Marking | 2D | |

Typical Characteristics



Ordering information

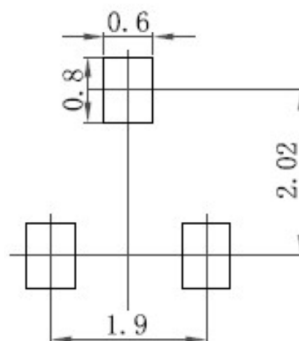
| Package | Packing Description | Base Quantity | Packing Quantity |
|---------|---------------------|---------------|-------------------------------|
| SOT-23 | Tape/Reel,7"reel | 3000pcs/Reel | 24000PCS/Box 120000PCS/Carton |

Package Dimensions

SOT-23

| Dim. | Millimeter (mm) | | mil | |
|------|-----------------|------|------|------|
| | Min. | Max. | Min. | Max. |
| A | 0.9 | 1.15 | 35 | 45 |
| A1 | 0.1 | | 3.9 | |
| bp | 0.38 | 0.48 | 15 | 19 |
| C | 0.09 | 0.15 | 3.54 | 5.9 |
| D | 2.8 | 3.0 | 110 | 118 |
| E | 1.2 | 1.4 | 47 | 55 |
| E | 1.9 | | 75 | |
| E1 | 0.95 | | 37 | |
| HE | 2.1 | 2.55 | 83 | 100 |
| Lp | 0.15 | 0.45 | 5.9 | 18 |
| Q | 0.45 | 0.55 | 18 | 22 |
| v | 0.2 | | 7.9 | |
| W | 0.1 | | 4 | |

The recommended mounting pad size



Disclaimer

The information presented in this document is for reference only. GuangDong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.