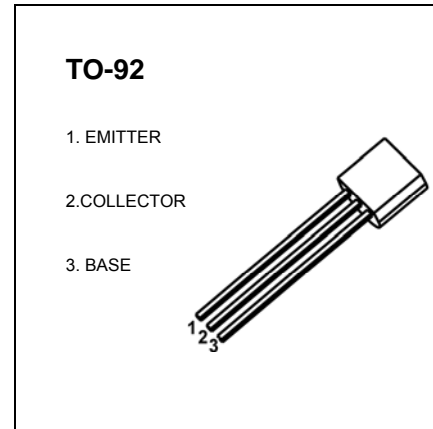


## TO-92 Plastic-Encapsulate Transistors

**BF421** TRANSISTOR (PNP)  
**BF423**

### FEATURES

- Low Feedback Capacitance.
- PNP Transistors in a TO-92 Plastic Package.  
NPN Complements: BF420 and BF422
- Class-B Video Output Stages in Colour Television and Professional Monitor Equipment.



### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

| Symbol              | Parameter                                   | BF421     | BF423 | Unit |
|---------------------|---|-----------|-------|------|
| V <sub>CBO</sub>    | Collector-Base Voltage                      | -300      | -250  | V    |
| V <sub>CEO</sub>    | Collector-Emitter Voltage                   | -300      | -250  | V    |
| V <sub>EBO</sub>    | Emitter-Base Voltage                        | -5        |       | V    |
| I <sub>C</sub>      | Collector Current -Continuous               | -100      |       | mA   |
| P <sub>C</sub>      | Collector Power Dissipation                 | 0.625     |       | W    |
| R <sub>th j-a</sub> | thermal resistance from junction to ambient | 200       |       | °C/W |
| T <sub>j</sub>      | junction temperature                        | 150       |       | °C   |
| T <sub>stg</sub>    | Storage Temperature Range                   | -65to+150 |       | °C   |

### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

| Parameter                            | Symbol         | Test conditions   | Min          | Max           | Unit |
|--------------------------------------|----------------|---|--------------|---------------|------|
| Collector-base breakdown voltage     | BF421<br>BF423 | V <sub>(BR)CBO</sub> I <sub>C</sub> =-100μA, I <sub>E</sub> =0  | -300<br>-250 |               | V    |
| Collector-emitter breakdown voltage  | BF421<br>BF423 | V <sub>(BR)CEO</sub> I <sub>C</sub> = -1mA, I <sub>B</sub> =0   | -300<br>-250 |               | V    |
| Emitter-base breakdown voltage       |                | V <sub>(BR)EBO</sub> I <sub>E</sub> =-100μA, I <sub>C</sub> =0  | -5           |               | V    |
| Collector cut-off current            |                | I <sub>CBO</sub> V <sub>CB</sub> =-200 V, I <sub>E</sub> =0   |              | -0.01         | μA   |
| Emitter cut-off current              | BF421<br>BF423 | I <sub>EBO</sub> V <sub>EB</sub> =-5V, I <sub>C</sub> =0  |              | -0.1<br>-0.05 | μA   |
| DC current gain                      |                | h <sub>FE</sub> V <sub>CE</sub> =-20V, I <sub>C</sub> =-25mA  | 50           |               |      |
| Collector-emitter saturation voltage | BF421<br>BF423 | V <sub>CE(sat)</sub> I <sub>C</sub> =-20mA, I <sub>B</sub> =-2mA<br>I <sub>C</sub> =-30mA, I <sub>B</sub> =-5mA |              | -0.6          | V    |
| Transition frequency                 |                | f <sub>T</sub> V <sub>CE</sub> =-10V, I <sub>C</sub> =-10mA<br>f = 100MHz                                       | 60           |               | MHz  |
| Feedback capacitance                 |                | C <sub>re</sub> V <sub>CE</sub> =-30V, I <sub>C</sub> =0, f=1MHz  |              | 1.6           | pF   |