

SOT223 NPN SILICON PLANAR HIGH VOLTAGE TRANSISTOR

BF720

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FEATURES

- * High breakdown and low saturation voltages

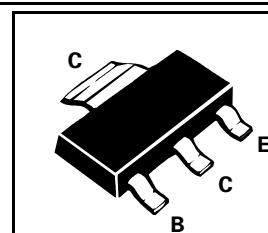
APPLICATIONS

- * Suitable for video output stages in TV sets
- * Switching power supplies

COMPLEMENTARY TYPE:- BF721

PARTMARKING DETAILS:- BF720

ABSOLUTE MAXIMUM RATINGS.



| PARAMETER | SYMBOL | VALUE | UNIT |
|---|---------------|-------------|------|
| Collector-Base Voltage | V_{CBO} | 300 | V |
| Collector-Emitter Voltage | V_{CEO} | 300 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Peak Pulse Current | I_{CM} | 100 | mA |
| Continuous Collector Current | I_C | 50 | mA |
| Power Dissipation at $T_{amb}=25^\circ\text{C}$ | P_{tot} | 2 | W |
| Operating and Storage Temperature Range | $T_j:T_{stg}$ | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | CONDITIONS. |
|---------------------------------------|---------------|------|------|----------|---------------------|--|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | 300 | | | V | $I_C=10\mu\text{A}, I_E=0$ |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | 300 | | | V | $I_C=1\text{mA}, I_B=0^*$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | 5 | | | V | $I_E=100\mu\text{A}, I_C=0$ |
| Collector Cut-Off Current | I_{CBO} | | | 10 | nA | $V_{CB}=200\text{V}, I_E=0$ |
| Collector Cut-Off Current | I_{CER} | | | 50 10 | nA μA | $V_{CE}=200\text{V}, R_{BE}=2.7\text{k}\Omega$ $V_{CE}=200\text{V}, R_{BE}=2.7\text{k}\Omega$ † |
| Emitter Cut-Off Current | I_{EBO} | | | 10 | μA | $V_{EB}=5\text{V}, I_C=0$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | | 0.6 | V | $I_C=30\text{mA}, I_B=5\text{mA}^*$ |
| Base Emitter Saturation Voltage | $V_{BE(sat)}$ | | | 0.9 | V | $I_C=20\text{mA}, I_B=2\text{mA}^*$ |
| Static Forward Current Transfer Ratio | h_{FE} | 50 | | | | $I_C=25\text{mA}, V_{CE}=20\text{V}^*$ |
| Transition Frequency | f_T | | 100 | | MHz | $I_C=10\text{mA}, V_{CE}=10\text{V}$ $f=100\text{MHz}$ |
| Output Capacitance | C_{obo} | | 0.8 | | pF | $V_{CB}=30\text{V}, f=1\text{MHz}$ |

† $T_{amb} = 150^\circ\text{C}$

*Measured under pulsed conditions.

For typical characteristics graphs see FMMTA42 datasheet.

ZETEX