

SOT223 NPN SILICON PLANAR HIGH VOLTAGE TRANSISTORS

BF720
BF722

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FEATURES

* High breakdown and low saturation voltages

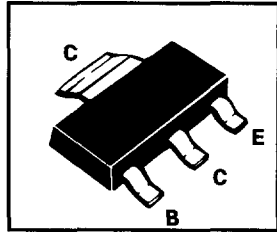
APPLICATIONS

* Suitable for video output stages in TV sets

* Switching power supplies

COMPLEMENTARY TYPES:- BF720 – BF721 BF722 – BF723

PARTMARKING DETAILS:- Device Type in Full



ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | BF720 | BF722 | UNIT |
|--------------------------------------------|----------------|-------------|-------|-------------|
| Collector-Base Voltage | V_{CBO} | 300 | 250 | V |
| Collector-Emitter Voltage | V_{CEO} | 300 | 250 | 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 $T_{amb}=25^{\circ}C$ | P_{tot} | 2 | | W |
| Operating and Storage Temperature Range | $T_j; T_{stg}$ | -55 to +150 | | $^{\circ}C$ |

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

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | CONDITIONS. |
|---------------------------------------|---------------|------------|------|----------|---------------|------------------------------------------------------------------------------|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | 300 250 | | | V | $I_C=10\mu A, I_E=0$ $I_C=10\mu A, I_E=0$ |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | 300 250 | | | V | $I_C=1mA, I_B=0^*$ $I_C=1mA, I_B=0^*$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | 5 | | | V | $I_E=100\mu A, I_C=0$ |
| Collector Cut-Off Current | I_{CBO} | | | 10 | nA | $V_{CB}=200V, I_E=0$ |
| Collector Cut-Off Current | I_{CER} | | | 50 10 | nA μA | $V_{CE}=200V, R_{BE}=2.7K\Omega$ $V_{CE}=200V, R_{BE}=2.7k\Omega \dagger$ |
| Emitter Cut-Off Current | I_{EBO} | | | 10 | μA | $V_{EB}=5V, I_C=0$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | | 0.6 | V | $I_C=30mA, I_B=5mA^*$ |
| Base Emitter Saturation Voltage | $V_{BE(sat)}$ | | | 0.9 | V | $I_C=20mA, I_B=2mA^*$ |
| Static Forward Current Transfer Ratio | h_{FE} | 50 | | | | $I_C=25mA, V_{CE}=20V^*$ |
| Transition Frequency | f_T | | 100 | | MHz | $I_C=10mA, V_{CE}=10V$ $f=100MHz$ |
| Output Capacitance | C_{obo} | | 0.8 | | pF | $V_{CB}=30V, f=1MHz$ |

$\dagger T_{amb} = 150^{\circ}C$

*Measured under pulsed conditions. Pulse width=300ms. Duty cycle $\leq 2\%$
For typical characteristics graphs see FMMTA42 datasheet.