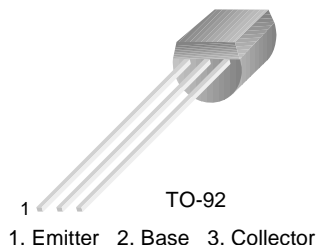


KSP94

High Voltage Transistor

- High Collector-Emitter Voltage: $V_{CE0} = -400V$
- Low Collector-Emitter Saturation Voltage
- Complement to KSP44



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a = 25^\circ C$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|-----------|-----------------------------|---------|------------|
| V_{CBO} | Collector-Base Voltage | -400 | V |
| V_{CEO} | Collector-Emitter Voltage | -400 | V |
| V_{EBO} | Emitter-Base Voltage | -6 | V |
| I_C | Collector Current | -300 | mA |
| P_C | Collector Power Dissipation | 625 | mW |
| T_J | Junction Temperature | 150 | $^\circ C$ |
| T_{STG} | Storage Temperature | -55~150 | $^\circ C$ |

Electrical Characteristics $T_a = 25^\circ C$ unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|----------------|--------------------------------------|------------------------------------|------|------|------|---------|
| BV_{CBO} | Collector-Base Breakdown Voltage | $I_C = -100\mu A, I_E = 0$ | -400 | | | V |
| BV_{CES} | Collector-Emitter Breakdown Voltage | $I_C = -100\mu A, V_{BE} = 0$ | -400 | | | V |
| BV_{EBO} | Emitter-Base Breakdown Voltage | $I_E = -10\mu A, I_C = 0$ | -6 | | | V |
| I_{CBO} | Collector Cut-off Current | $V_{CB} = -300V, V_E = 0$ | | | -100 | nA |
| I_{CES} | Collector Cut-off Current | $V_{CE} = -400V, V_{BE} = 0V$ | | | -1 | μA |
| I_{EBO} | Emitter Cut-off Current | $V_{BE} = -4V, I_C = 0$ | | | -100 | nA |
| h_{FE1} | DC Current Gain | $V_{CE} = -10V, I_C = -1mA$ | 40 | | | |
| h_{FE2} | | $V_{CE} = -10V, I_C = -10mA$ | 50 | | 300 | |
| h_{FE3} | | $V_{CE} = -10V, I_C = -50mA$ | 45 | | | |
| h_{FE4} | | $V_{CE} = -10V, I_C = -100mA$ | 40 | | | |
| $V_{CE(sat)1}$ | Collector-Emitter Saturation Voltage | $I_C = -10mA, I_B = -1mA$ | | | -500 | mV |
| $V_{CE(sat)2}$ | | $I_C = -50mA, I_B = -5mA$ | | | -750 | mV |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C = -10mA, I_B = -1mA$ | | | -750 | mV |
| C_{ob} | Output Capacitance | $V_{CB} = -20V, I_E = 0, f = 1MHz$ | | 7 | | pF |

Typical Characteristics

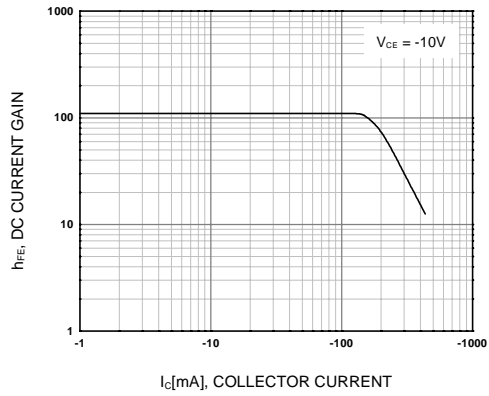


Figure 1. DC current Gain

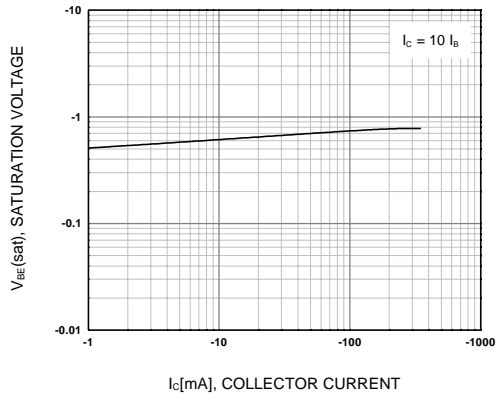


Figure 2. Base-Emitter Saturation Voltage

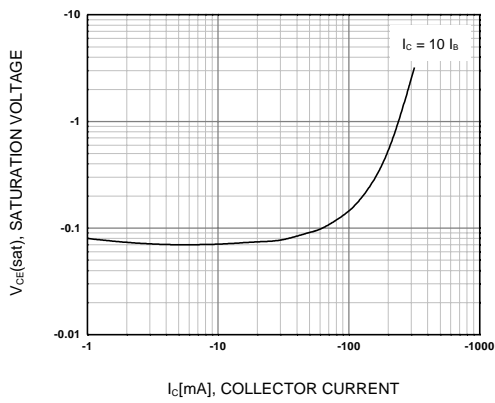


Figure 3. Collector-Emitter Saturation Voltage

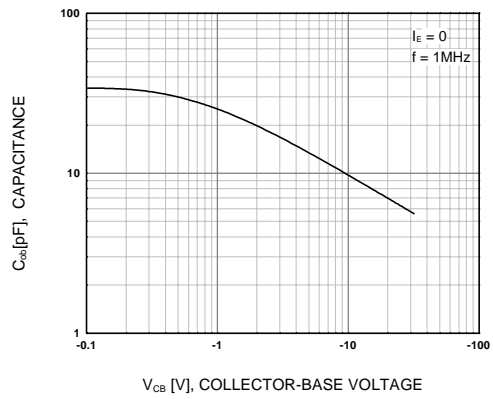


Figure 4. Collector Output Capacitance

Package Dimensions

TO-92



Dimensions in Millimeters

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