

**KSR2110**

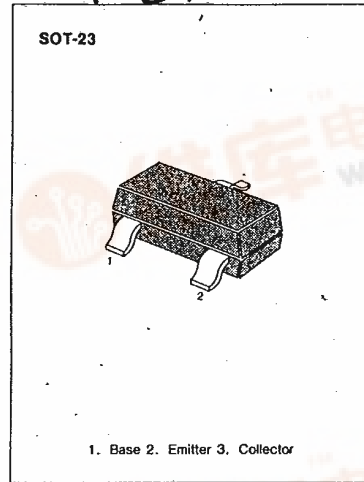
**PNP EPITAXIAL SILICON TRANSISTOR**

**SWITCHING APPLICATION (Bias Resistor Built In)**

- Switching Circuit, Inverter, Interface circuit  
Driver circuit
- Built in bias Resistor (R=10KΩ)
- Complement to KSR1110

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub> = 25°C)**

| Characteristic            | Symbol           | Rating  | Unit |
|---------------------------|------------------|---------|------|
| Collector-Base Voltage    | V <sub>CBO</sub> | -40     | V    |
| Collector-Emitter Voltage | V <sub>CEO</sub> | -40     | V    |
| Emitter-Base Voltage      | V <sub>EBO</sub> | -5      | V    |
| Collector Current         | I <sub>C</sub>   | -100    | mA   |
| Collector Dissipation     | P <sub>C</sub>   | 200     | mW   |
| Junction Temperature      | T <sub>J</sub>   | 150     | °C   |
| Storage Temperature       | T <sub>stg</sub> | -55~150 | °C   |

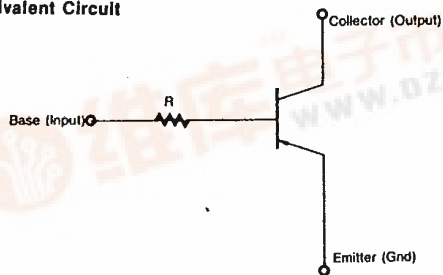


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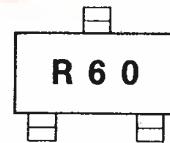
**ELECTRICAL CHARACTERISTICS (T<sub>a</sub> = 25°C)**

| Characteristic                       | Symbol               | Test Condition   | Min | Typ | Max  | Unit |
|--------------------------------------|----------------------|--|-----|-----|------|------|
| Collector-Base Breakdown Voltage     | BV <sub>CBO</sub>    | I <sub>C</sub> = -100μA, I <sub>E</sub> = 0            | -40 |     |      | V    |
| Collector-Emitter Breakdown Voltage  | BV <sub>CEO</sub>    | I <sub>E</sub> = -1mA, I <sub>B</sub> = 0              | -40 |     |      | V    |
| Collector Cutoff Current             | I <sub>CBO</sub>     | V <sub>CB</sub> = -30V, I <sub>E</sub> = 0             |     |     | -0.1 | μA   |
| DC Current Gain                      | h <sub>FE</sub>      | V <sub>CE</sub> = -5V, I <sub>C</sub> = -1mA           | 100 |     | 600  |      |
| Collector-Emitter Saturation Voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA          |     |     | 0.3  | V    |
| Output Capacitance                   | C <sub>ob</sub>      | V <sub>CB</sub> = -10V, I <sub>E</sub> = 0<br>f = 1MHz |     | 5.5 |      | pF   |
| Current Gain-Bandwidth Product       | f <sub>T</sub>       | V <sub>CE</sub> = -10V, I <sub>C</sub> = -5mA          |     | 200 |      | MHz  |
| Input Resistor                       | R                    |  | 7   | 10  | 13   | KΩ   |

**Equivalent Circuit**



**Marking**

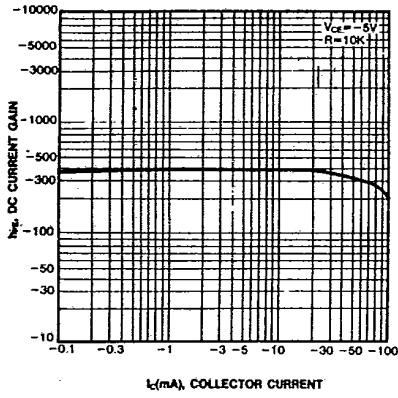


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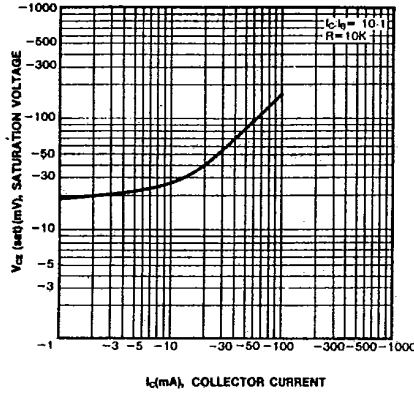
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T-37-13

DC CURRENT GAIN



COLLECTOR-EMITTER SATURATION VOLTAGE



POWER DERATING

