

KSR2113

PNP EPITAXIAL SILICON TRANSISTOR

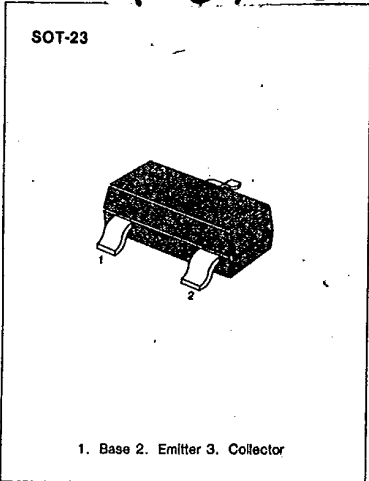
T-37-13

SWITCHING APPLICATION (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit Driver circuit
- Built in bias Resistor ($R_1=2.2K\Omega$, $R_2=47K\Omega$)
- Complement to KSR1113

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ C$)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|-----------|-----------|------------|
| Collector-Base Voltage | V_{CBO} | -50 | V |
| Collector-Emitter Voltage | V_{CEO} | -50 | V |
| Emitter-Base Voltage | V_{EBO} | -10 | V |
| Collector Current | I_C | -100 | mA |
| Collector Dissipation | P_C | 300 | mW |
| Junction Temperature | T_J | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | -55 - 150 | $^\circ C$ |

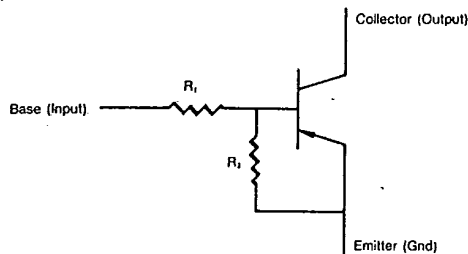


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ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

| Characteristic | Symbol | Test Condition | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|-------|-------|-------|-----------|
| Collector-Base Breakdown Voltage | BV_{CBO} | $I_C = -10\mu A, I_E = 0$ | -50 | | | V |
| Collector-Emitter Breakdown Voltage | BV_{CEO} | $I_C = -100\mu A, I_B = 0$ | -50 | | | V |
| Collector Cutoff Current | I_{CBO} | $V_{CB} = -40V, I_E = 0$ | | | -0.1 | μA |
| DC Current Gain | h_{FE} | $V_{CE} = -5V, I_C = -5mA$ | 68 | | | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -10mA, I_B = -0.5mA$ | | | -0.3 | V |
| Current Gain-Bandwidth Product | f_T | $V_{CE} = -5mA, I_C = -10V$ | | 200 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB} = -10V, I_E = 0$ $f = 1.0MHz$ | | 5.5 | | pF |
| Input Off Voltage | $V_i(off)$ | $V_{CE} = -5V, I_C = -100\mu A$ | -0.5 | | | V |
| Input On Voltage | $V_i(on)$ | $V_{CE} = -0.2V, I_C = -10mA$ | | | -1.1 | V |
| Input Resistor | R_1 | | 1.5 | 2.2 | 2.9 | $K\Omega$ |
| Resistor Ratio | R_1/R_2 | | 0.042 | 0.047 | 0.052 | |

Equivalent Circuit



Marking

