

KSR2107

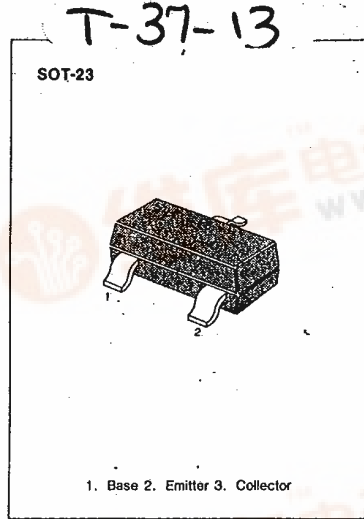
PNP EPITAXIAL SILICON TRANSISTOR

SWITCHING APPLICATION (Bias Resistor Built In)

- Switching Circuit, Inverter, Interface circuit Driver circuit
- Built in bias Resistor ($R_1=22K\Omega$, $R_2=47K\Omega$)
- Complement to KSR1107

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

| Characteristic | Symbol | Rating | Unit |
|---------------------------|-----------|-----------|------------|
| Collector-Base Voltage | V_{CB0} | -50 | V |
| Collector-Emitter Voltage | V_{CE0} | -50 | V |
| Emitter-Base Voltage | V_{EB0} | -10 | V |
| Collector Current | I_c | -100 | mA |
| Collector Dissipation | P_c | 200 | mW |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | -55 ~ 150 | $^\circ C$ |

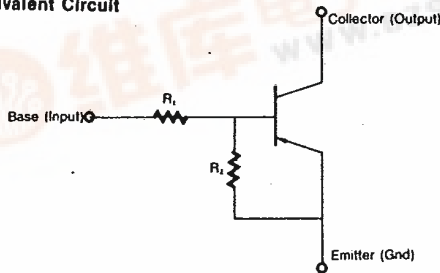


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ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

| Characteristic | Symbol | Test Condition | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|------|------|------|-----------|
| Collector-Base Breakdown Voltage | BV_{CB0} | $I_c = -10\mu A, I_E = 0$ | -50 | | | V |
| Collector-Emitter Breakdown Voltage | BV_{CE0} | $I_c = -100\mu A, I_B = 0$ | -50 | | | V |
| Collector Cutoff Current | I_{CB0} | $V_{CB} = -40V, I_E = 0$ | | | -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 | Cob | $V_{CB} = -10V, I_E = 0$ $f = 1MHz$ | | 5.5 | | pF |
| Current Gain-Bandwidth Product | f_T | $V_{CE} = -10V, I_c = -5mA$ | | 200 | | MHz |
| Input Off Voltage | $V_{I(off)}$ | $V_{CE} = -5V, I_c = -100\mu A$ | -0.4 | | | V |
| Input On Voltage | $V_{I(on)}$ | $V_{CE} = -0.3V, I_c = -2mA$ | | | -2.5 | V |
| Input Resistor | R_1 | | 15 | 22 | 29 | $K\Omega$ |
| Resistor Ratio | R_1/R_2 | | 0.42 | 0.47 | 0.52 | |

Equivalent Circuit



Marking

