

RT5P136C

Transistor With Resistor
For Switching Application
Silicon PNP Epitaxial Type

DESCRIPTION

RT5P136C is a one chip transistor with built-in bias resistor.

FEATURE

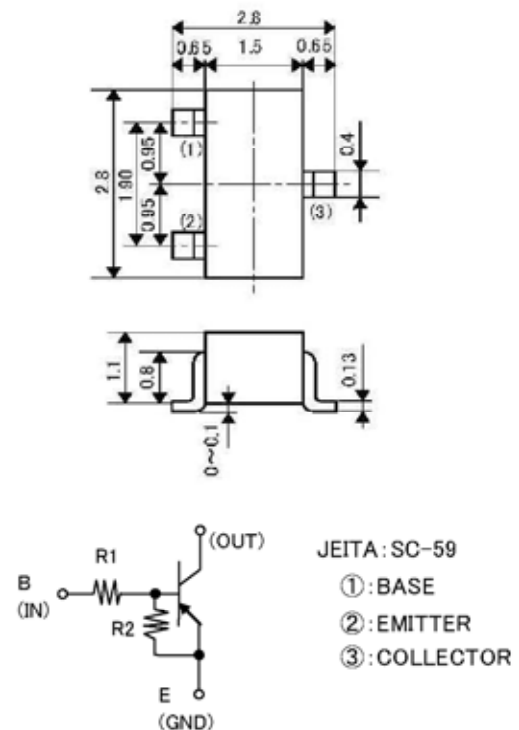
Built-in bias resistor ($R_1=1k\Omega$, $R_2=10k\Omega$)
High collector current ($I_c=0.5A$)
Mini package for easy mounting

APPLICATION

Inverted circuit, Switching circuit, Interface circuit,
Driver circuit

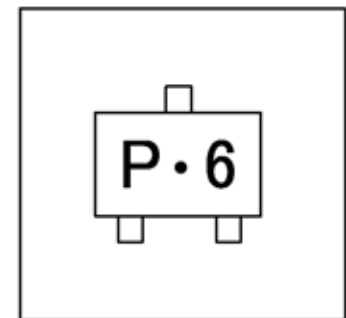
OUTLINE DRAWING

Unit: mm



MAXIMUM RATING ($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | RATING | UNIT |
|-----------|---|------------|------------------|
| V_{CBO} | Collector to Base voltage | -50 | V |
| V_{EBO} | Emitter to Base voltage | -5 | V |
| V_{IN} | Input voltage | -10 | V |
| V_{CEO} | Collector to Emitter voltage | -50 | V |
| I_c | Collector current | -500 | mA |
| P_C | Collector dissipation($T_a=25^\circ\text{C}$) | 200 | mW |
| T_j | Junction temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | -55 ~ +150 | $^\circ\text{C}$ |



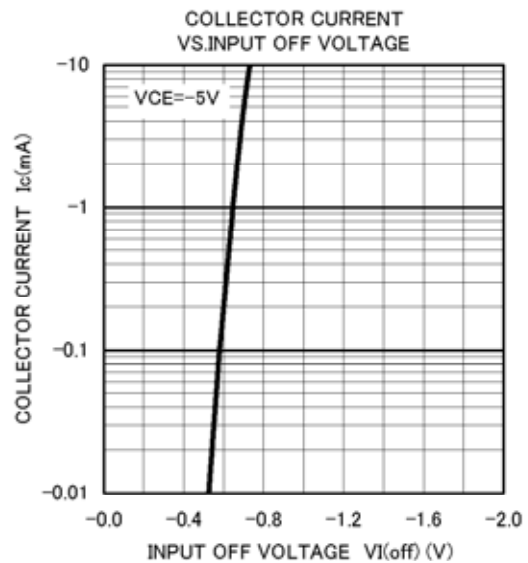
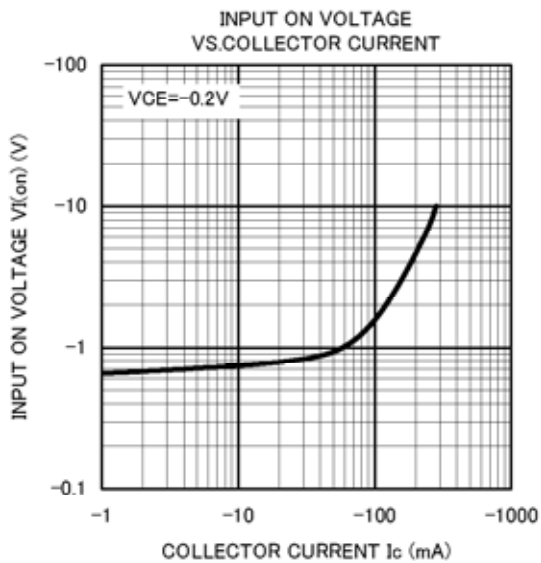
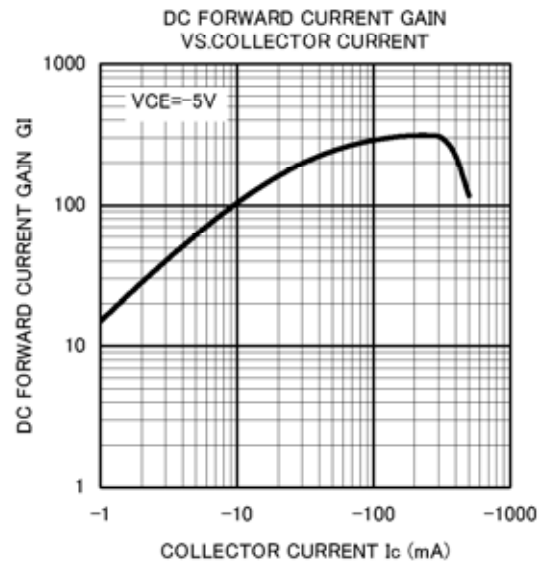
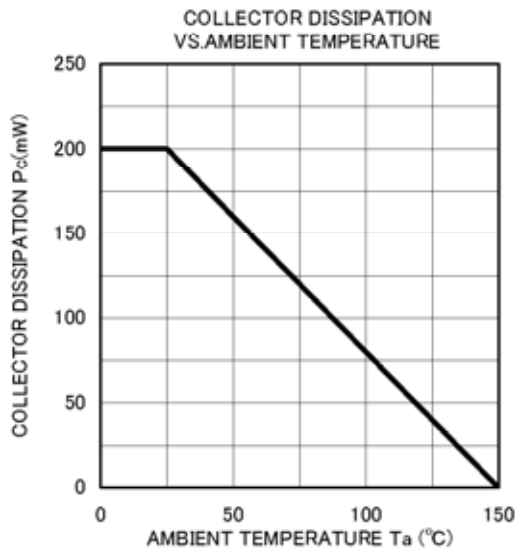
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | TEST CONDITION | LIMIT | | | UNIT |
|---------------|---------------------------|--|-------|-----|------|-----------|
| | | | MIN | TYP | MAX | |
| $V_{I(on)}$ | Input on voltage | $V_{CE}=-0.3V$, $I_C=-20mA$ | — | — | -3.0 | V |
| $V_{I(off)}$ | Input off voltage | $V_{CE}=-5V$, $I_C=-100\mu A$ | -0.3 | — | — | V |
| $V_{CE(sat)}$ | C to E saturation voltage | $I_C=-50mA$, $I_B=-2.5mA$ | — | — | -0.3 | V |
| I_{BE} | B to E current | $V_{EB}=-5V$ | — | — | -7.2 | mA |
| I_{CES} | Collector cut off current | $V_{CE}=-50V$, $V_{BE}=-0V$ | — | — | -0.5 | μA |
| G_1 | DC forward current gain | $V_{CE}=-5V$, $I_E=-50mA$ | 56 | — | — | — |
| R_1 | Input resistor | — | 0.7 | 1.0 | 1.3 | $k\Omega$ |
| R_2/R_1 | Resistor ratio | — | 8 | 10 | 12 | — |
| f_T | Gain band width product | $V_{CE}=-10V$, $I_E=5mA$, $f=100MHz$ | — | 150 | — | MHz |

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TYPICAL CHARACTERISTICS





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