

SANYO

No.4721

2SA1866

PNP Epitaxial Planar Silicon Transistor

Muting Circuits, Driver Applications

Features

- On-chip bias resistors ($R1 = 47k\Omega$, $R2 = 47k\Omega$).
- Very small-sized package making 2SA1866-applied sets small and slim.
- Small ON resistance.
- High gain-bandwidth product f_T .

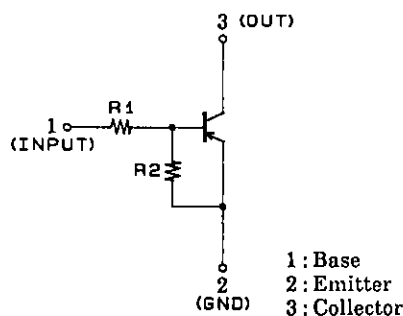
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

| | | | unit |
|------------------------------|-----------|-------------|------------------|
| Collector-to-Base Voltage | V_{CBO} | -15 | V |
| Collector-to-Emitter Voltage | V_{CEO} | -15 | V |
| Emitter-to-Base Voltage | V_{EBO} | -10 | V |
| Input Voltage | V_{IN} | -14 | V |
| Collector Current | I_C | -50 | mA |
| Collector Current (Pulse) | I_{CP} | -100 | mA |
| Base Current | I_B | -10 | mA |
| Collector Dissipation | P_C | 150 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

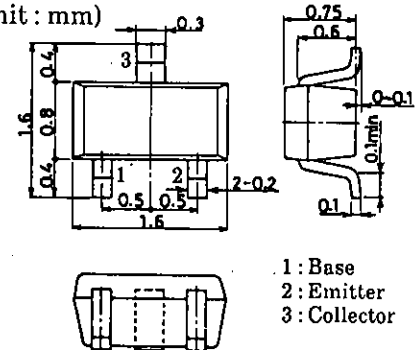
Electrical Characteristics at $T_a = 25^\circ\text{C}$

| | | | min | typ | max | unit |
|--------------------------|---------------|--|------|------|------|---------------|
| Collector Cutoff Current | I_{CBO} | $V_{CB} = -10\text{V}, I_E = 0$ | | | -0.1 | μA |
| Collector Cutoff Current | I_{CEO} | $V_{CE} = -10\text{V}, I_B = 0$ | | | -0.5 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = -5\text{V}, I_C = 0$ | -30 | -53 | -80 | μA |
| DC Current Gain | h_{FE} | $V_{CE} = -2\text{V}, I_C = -5\text{mA}$ | 100 | | | |
| Gain-Bandwidth Product | f_T^* | $V_{CE} = -5\text{V}, I_C = -10\text{mA}$ | | 600 | | MHz |
| Output Capacitance | C_{ob}^* | $V_{CB} = -10\text{V}, f = 1\text{MHz}$ | | 0.9 | | pF |
| C-E Saturation Voltage | $V_{CE(sat)}$ | $I_C = -2\text{mA}, I_B = -0.2\text{mA}$ | -20 | -60 | | mV |
| C-B Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = -10\mu\text{A}, I_E = 0$ | -15 | | | V |
| C-E Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = -1\text{mA}, R_{BE} = \infty$ | -15 | | | V |
| Input OFF-State Voltage | $V_{IN(off)}$ | $V_{CE} = -2\text{V}, I_C = -100\mu\text{A}$ | -0.8 | -1.2 | -1.5 | V |
| Input ON-State Voltage | $V_{IN(on)}$ | $V_{CE} = -0.3\text{V}, I_C = -5\text{mA}$ | -1.0 | -2.3 | -4.0 | V |
| Input Resistance | R1 | | 32 | 47 | 62 | k Ω |
| Resistance Ratio | R1/R2 | | 0.9 | 1.0 | 1.1 | |
| ON Resistance | R_{on} | $V_{IN} = -10\text{V}, f = 1\text{MHz}$ | | 10.0 | | Ω |

* : Characteristic of the constituent transistor.

Marking : CA**Electrical Connection****Package Dimensions 2106A**

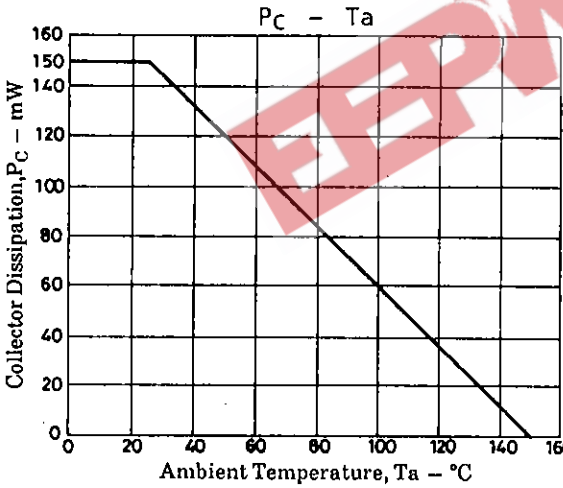
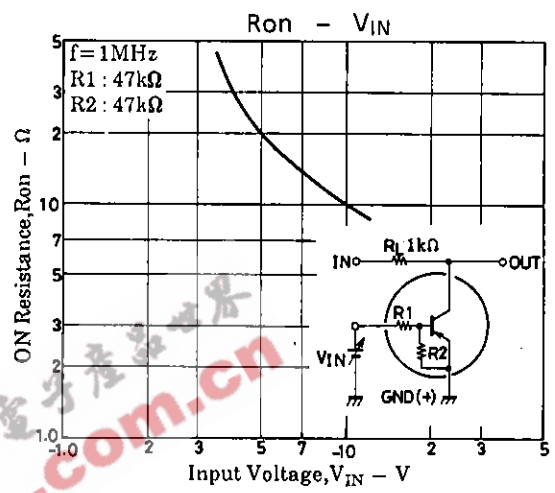
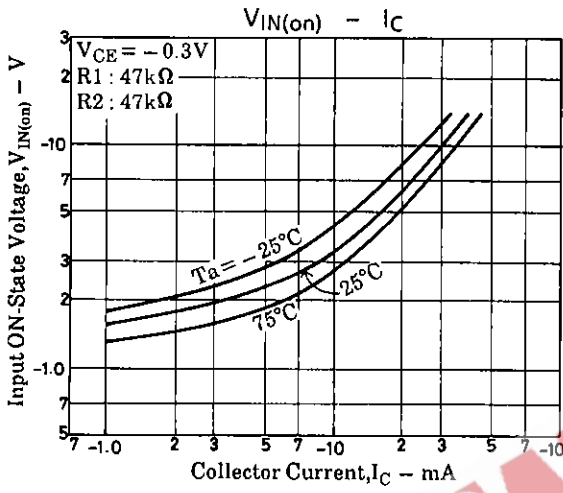
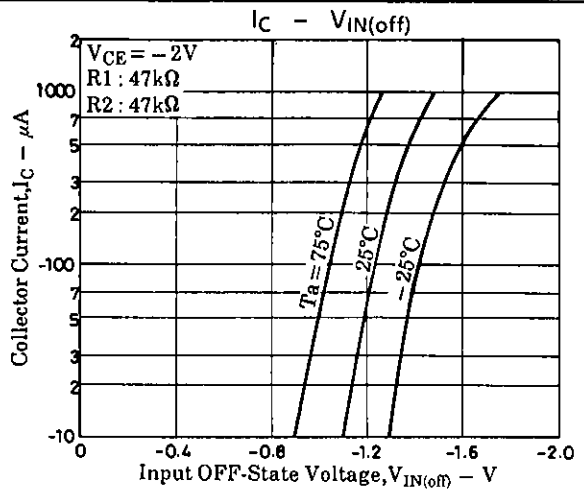
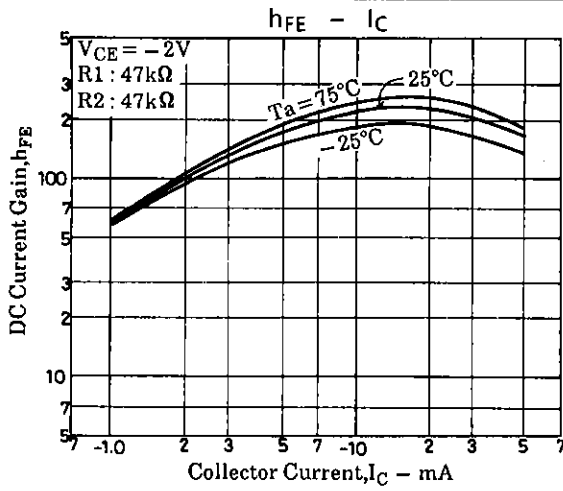
(unit : mm)



SANYO : SMCP

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