

| | | |
|------------------------------------|---------|---|
| SANYO | No.5031 | 2SA1965 |
| | | PNP Epitaxial Planar Silicon Transistor |
| Muting Circuit Applications | | |

Features

- Very small-sized package permitting 2SA1965-applied sets to be made small and slim.
- Small output capacitance.
- Low collector-to-emitter saturation voltage.
- Small ON resistance.

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

| | | | unit |
|------------------------------|-----------|-------------|------------------|
| Collector-to-Base Voltage | V_{CB0} | -15 | V |
| Collector-to-Emitter Voltage | V_{CEO} | -10 | V |
| Emitter-to-Base Voltage | V_{EBO} | -5 | V |
| Collector Current | I_C | -100 | mA |
| Collector Current (Pulse) | I_{CP} | -200 | mA |
| Base Current | I_B | -20 | mA |
| Collector Dissipation | P_C | 150 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

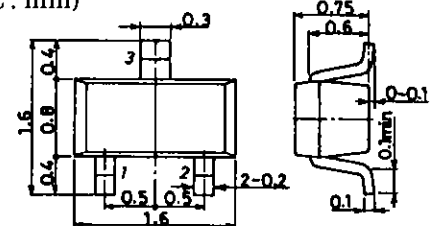
Electrical Characteristics at $T_a = 25^\circ\text{C}$

| | | | min | typ | max | unit |
|--------------------------|---------------|---|-----|-------|------|---------------|
| Collector Cutoff Current | I_{CBO} | $V_{CB} = -12\text{V}, I_E = 0$ | | | -0.1 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = -4\text{V}, I_C = 0$ | | | -0.1 | μA |
| DC Current Gain | h_{FE} | $V_{CE} = -2\text{V}, I_C = -5\text{mA}$ | 200 | | 600 | |
| Gain-Bandwidth Product | f_T | $V_{CE} = -5\text{V}, I_C = -10\text{mA}$ | | 600 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB} = -10\text{V}, f = 1\text{MHz}$ | | 5.0 | | pF |
| C-E Saturation Voltage | $V_{CE(sat)}$ | $I_C = -10\text{mA}, I_B = -1\text{mA}$ | | -16 | -35 | mV |
| B-E Saturation Voltage | $V_{BE(sat)}$ | $I_C = -10\text{mA}, I_B = -1\text{mA}$ | | -0.75 | -1.1 | V |
| C-B Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = -10\mu\text{A}, I_E = 0$ | -15 | | | V |
| C-E Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = -1\text{mA}, R_{BE} = \infty$ | -10 | | | V |
| E-B Breakdown Voltage | $V_{(BR)EBO}$ | $I_E = -10\mu\text{A}, I_C = 0$ | -5 | | | V |
| ON Resistance | R_{on} | $I_B = -3\text{mA}, f = 1\text{MHz}$ | | 1.2 | | Ω |

Marking: KA

Package Dimensions 2106A

(unit: mm)

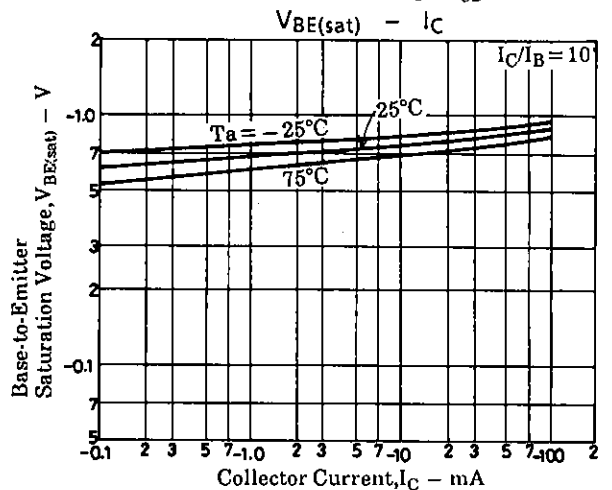
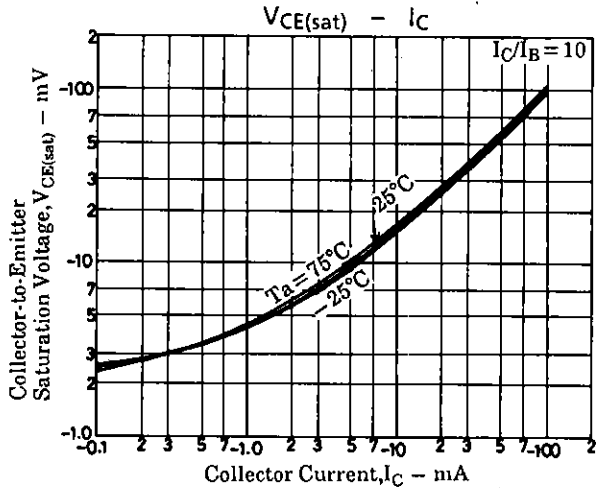
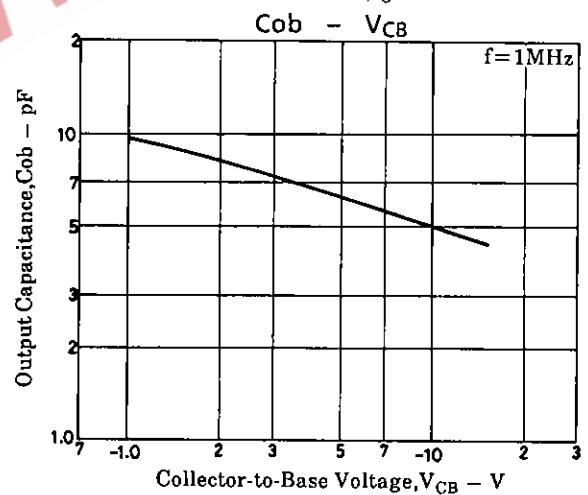
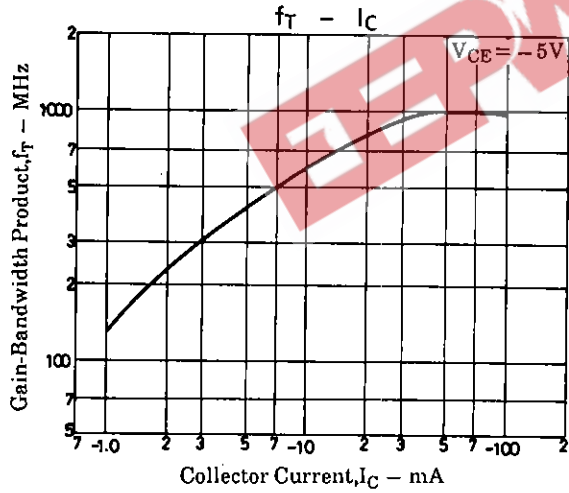
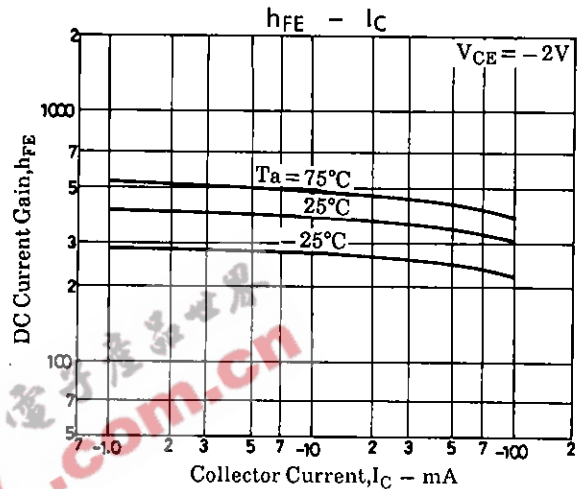
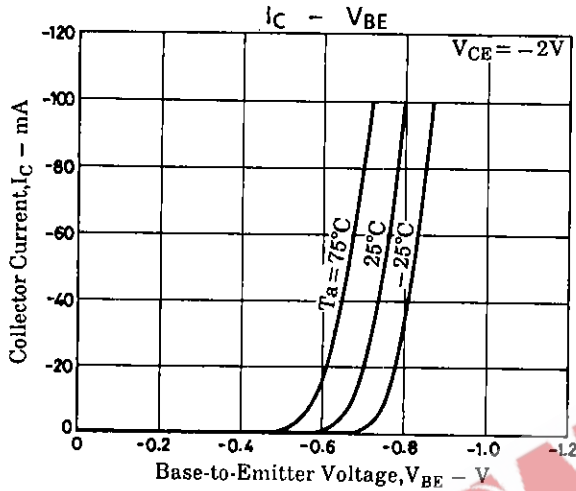
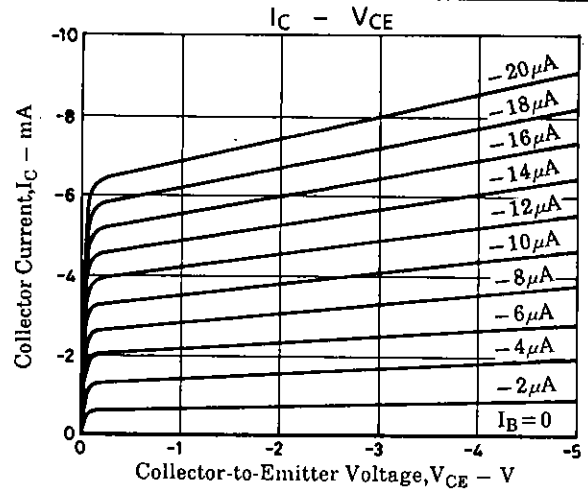
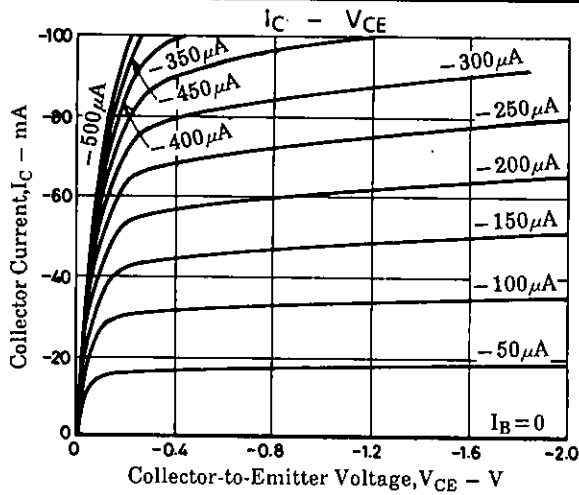


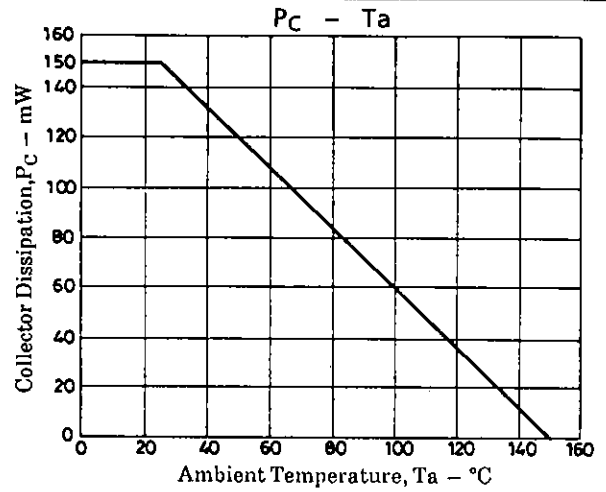
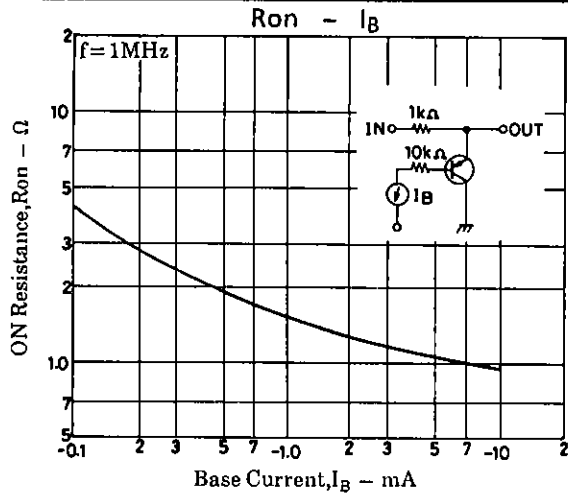
1: Base
2: Emitter
3: Collector

SANYO:SMCP

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