


|   |         |   |
|---|---------|---|
|  | No.4661 | <b>2SA1881/2SC4983</b><br>PNP/NPN Epitaxial Planar Silicon Transistors<br>Low-Frequency<br>General-Purpose Amp Applications |
|   |         |   |

### Applications

- AF power amp, medium-speed switching, small-sized motor drivers and LED drivers.

### Features

- Large current capacity.
- Low collector to emitter saturation voltage.
- Very small-sized package permitting 2SA1881/2SC4983-applied sets to be made smaller and slimmer.

( ) : 2SA1881

### Absolute Maximum Ratings at Ta = 25°C

|                              |           |             | unit |
|------------------------------|-----------|-------------|------|
| Collector-to-Base Voltage    | $V_{CBO}$ | (- )15      | V    |
| Collector-to-Emitter Voltage | $V_{CEO}$ | (- )15      | V    |
| Emitter-to-Base Voltage      | $V_{EBO}$ | (- )5       | V    |
| Collector Current            | $I_C$     | (- )1       | A    |
| Collector Current(Pulse)     | $I_{CP}$  | (- )3       | A    |
| Base Current                 | $I_B$     | (- )200     | mA   |
| Collector Dissipation        | $P_C$     | 250         | mW   |
| Junction Temperature         | $T_j$     | 150         | °C   |
| Storage Temperature          | $T_{stg}$ | -55 to +150 | °C   |

### Electrical Characteristics at Ta = 25°C

|                          |                  |                                  | min    | typ      | max     | unit |
|--------------------------|------------------|----------------------------------|--------|----------|---------|------|
| Collector Cutoff Current | $I_{CBO}$        | $V_{CB} = (-)12V, I_E = 0$       |        |          | (- )100 | nA   |
| Emitter Cutoff Current   | $I_{EBO}$        | $V_{EB} = (-)4V, I_C = 0$        |        |          | (- )100 | nA   |
| DC Current Gain          | $h_{FE}(1)$      | $V_{CE} = (-)2V, I_C = (-)50mA$  | 135※   |          | 600※    |      |
|                          | $h_{FE}(2)$      | $V_{CE} = (-)2V, I_C = (-)800mA$ | 80     |          |         |      |
| Gain-Bandwidth Product   | $f_T$            | $V_{CE} = (-)2V, I_C = (-)50mA$  |        | (300)200 |         | MHz  |
| C-E Saturation Voltage   | $V_{CE(sat)}(1)$ | $I_C = (-)5mA, I_B = (-)0.5mA$   |        | (- )10   | (- )25  | mV   |
|                          | $V_{CE(sat)}(2)$ | $I_C = (-)500mA, I_B = (-)25mA$  |        | (- )120  | (- )240 | mV   |
| B-E Saturation Voltage   | $V_{BE(sat)}$    | $I_C = (-)500mA, I_B = (-)25mA$  |        | (- )0.9  | (- )1.2 | V    |
| Output Capacitance       | $C_{ob}$         | $V_{CB} = (-)10V, f = 1MHz$      |        | (15)10   |         | pF   |
| C-B Breakdown Voltage    | $V_{(BR)CBO}$    | $I_C = (-)10\mu A, I_E = 0$      | (- )15 |          |         | V    |
| C-E Breakdown Voltage    | $V_{(BR)CEO}$    | $I_C = (-)1mA, R_{BE} = \infty$  | (- )15 |          |         | V    |
| E-B Breakdown Voltage    | $V_{(BR)EBO}$    | $I_E = (-)10\mu A, I_C = 0$      | (- )5  |          |         | V    |

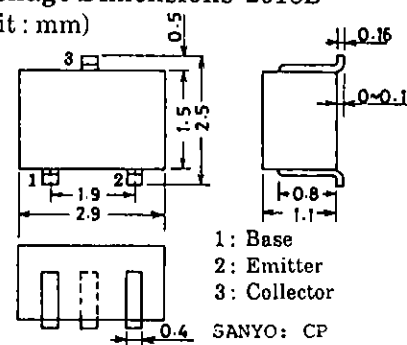
※ : The 2SA1881/2SC4983 are classified by 50mA  $h_{FE}$  as follows:

|     |   |     |     |   |     |     |   |     |
|-----|---|-----|-----|---|-----|-----|---|-----|
| 135 | 5 | 270 | 200 | 6 | 400 | 300 | 7 | 600 |
|-----|---|-----|-----|---|-----|-----|---|-----|

Marking : 2SA1881 : IS  
2SC4983 : KN

### Package Dimensions 2018B

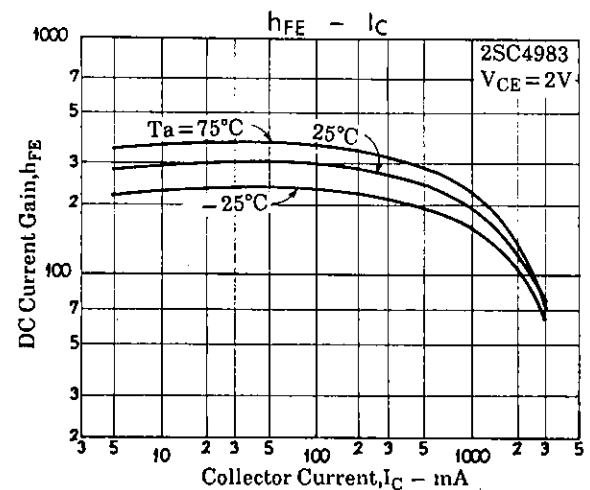
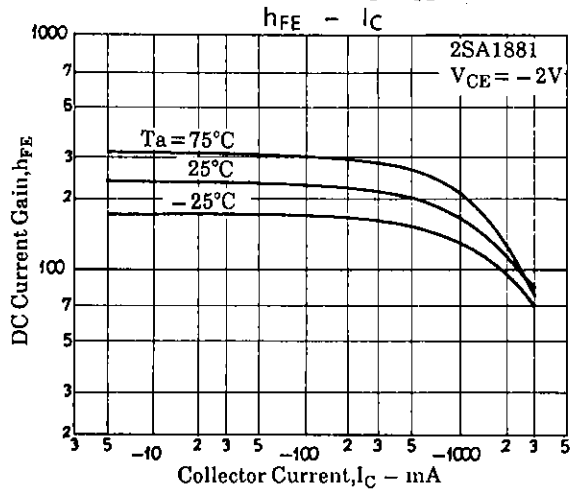
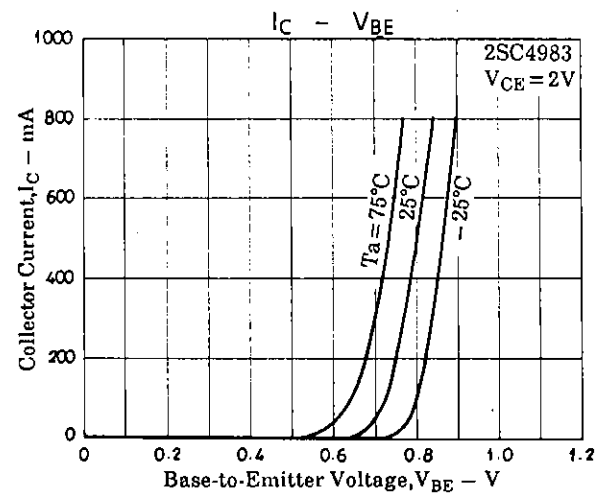
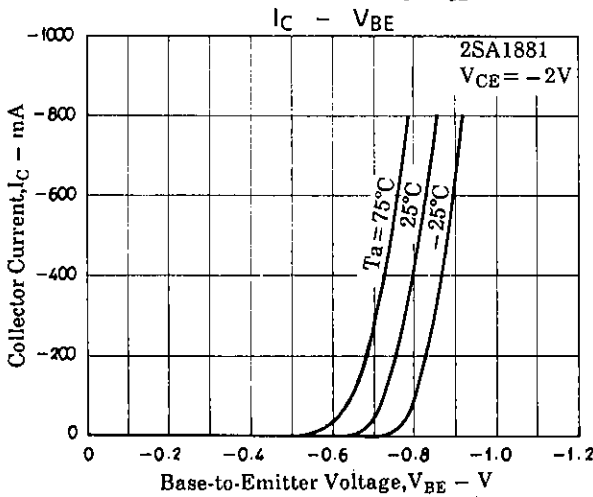
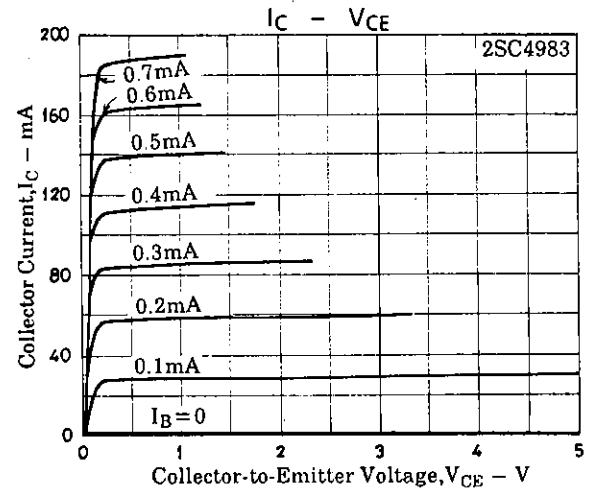
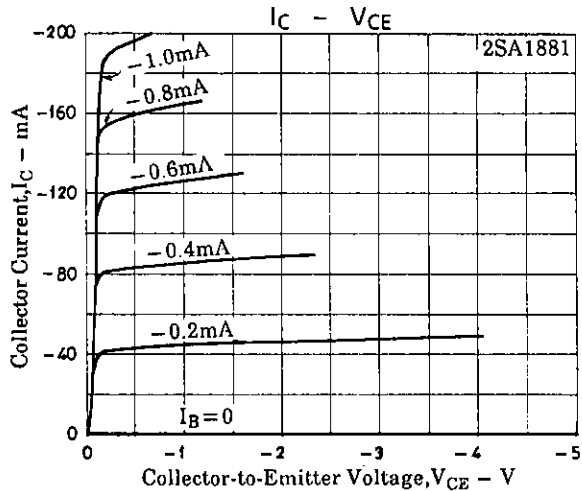
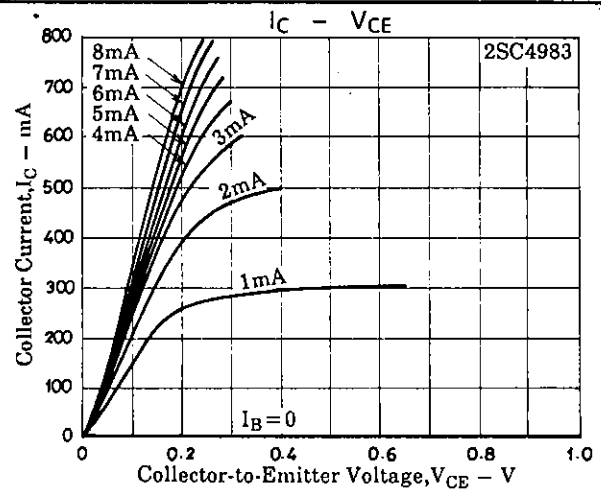
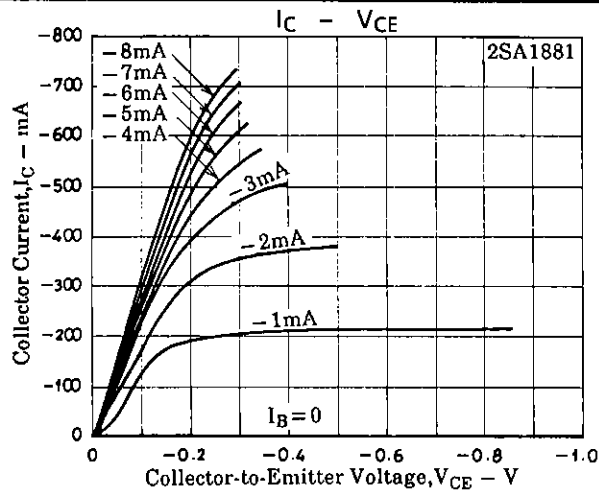
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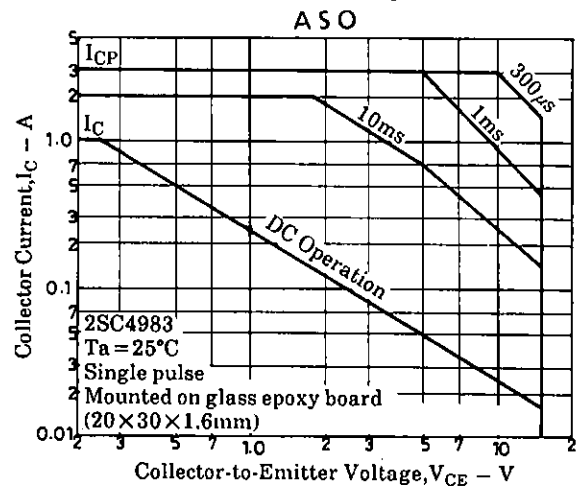
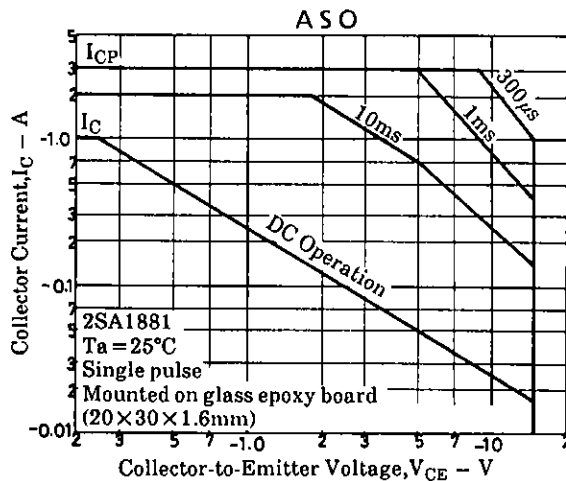
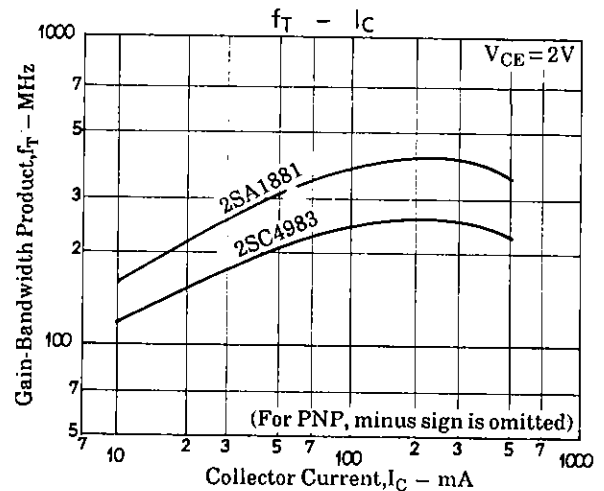
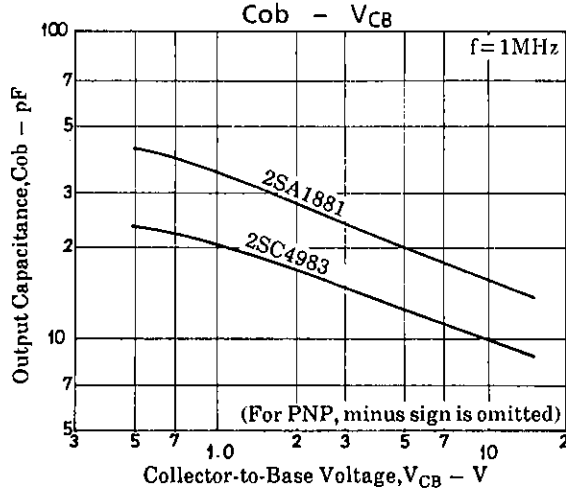
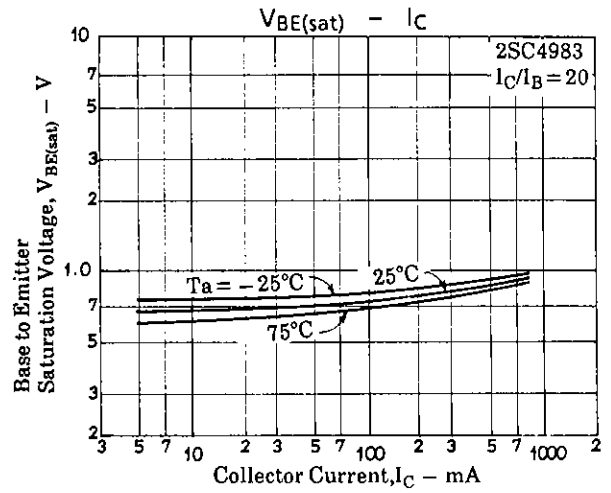
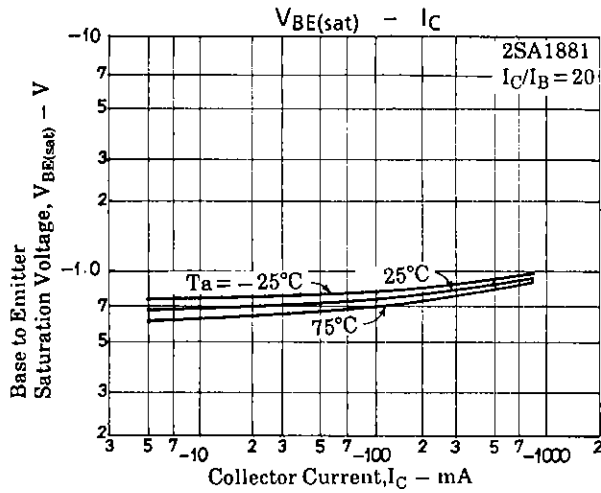
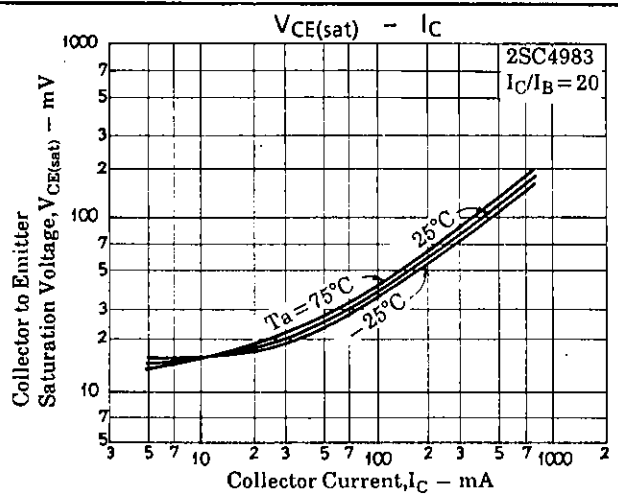
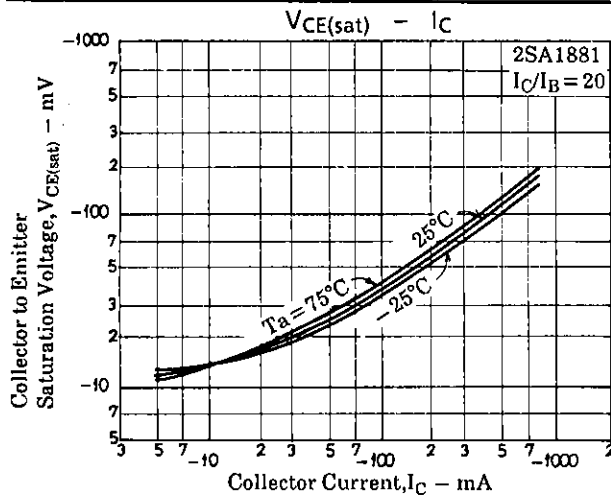


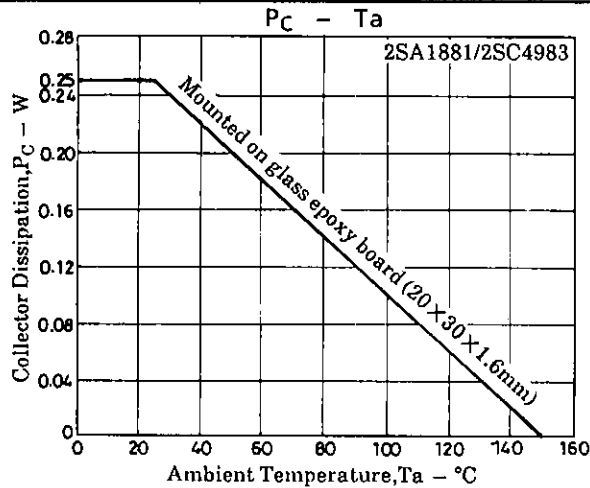
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