



2SA1881/2SC4983

Low-Frequency General-Purpose Amplifier Applications

Features

- AF power amplifier, 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 set to be made smaller and slimmer.

() : 2SA1881

Specifications

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

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|-----------|------------|-------------|------------------|
| Collector-to-Base Voltage | V_{CB0} | | (-)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 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--------------------------|-----------|--|---------|--------|--------|------|
| | | | min | typ | max | |
| Collector Cutoff Current | I_{CBO} | $V_{CB} = (-)12\text{V}, I_E = 0$ | | | (-)100 | nA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = (-)4\text{V}, I_C = 0$ | | | (-)100 | nA |
| DC Current Gain | h_{FE1} | $V_{CE} = (-)2\text{V}, I_C = (-)50\text{mA}$ | 135* | | 600* | |
| | h_{FE2} | $V_{CE} = (-)2\text{V}, I_C = (-)800\text{mA}$ | 80 | | | |
| Gain-Bandwidth Product | f_T | $V_{CE} = (-)2\text{V}, I_C = (-)50\text{mA}$ | | (300) | | MHz |
| | | | | 200 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB} = (-)10\text{V}, f = 1\text{MHz}$ | | (15)10 | | pF |

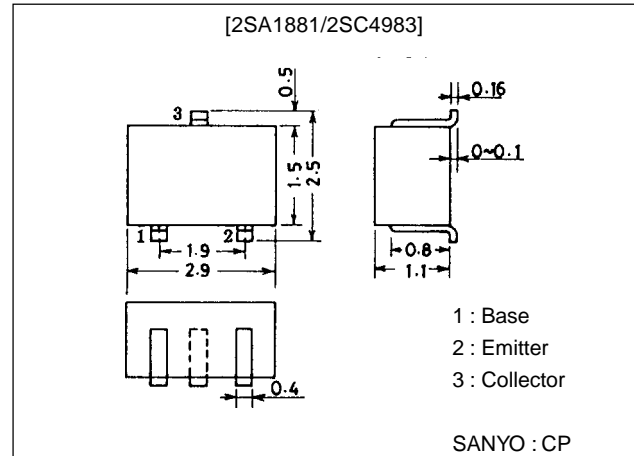
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Package Dimensions

unit:mm

2018B



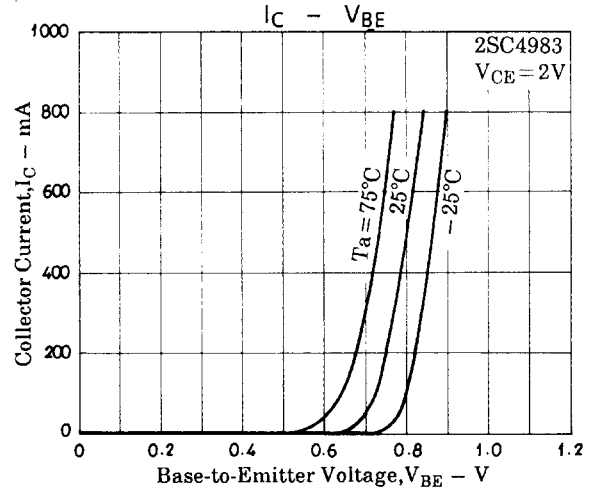
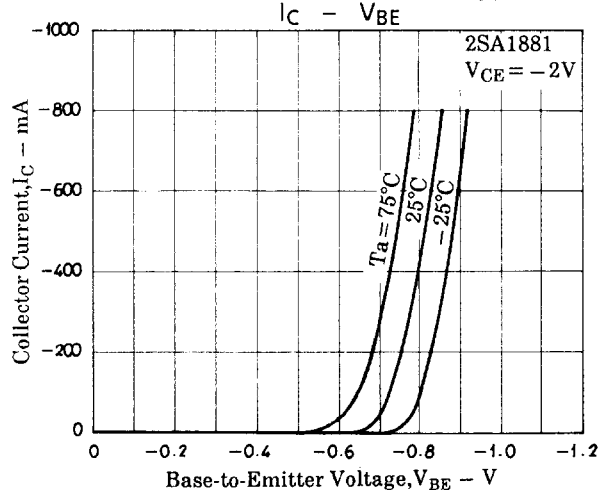
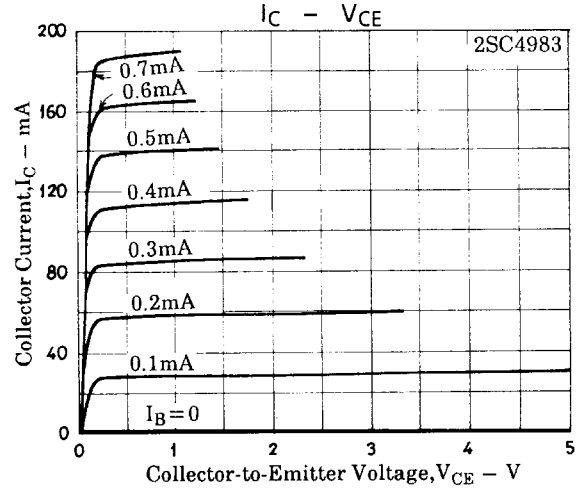
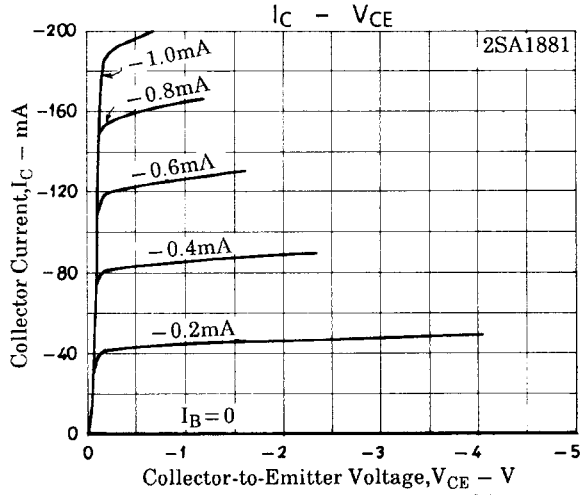
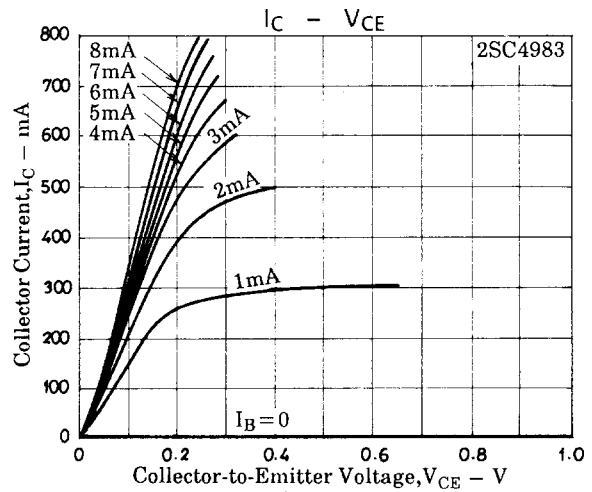
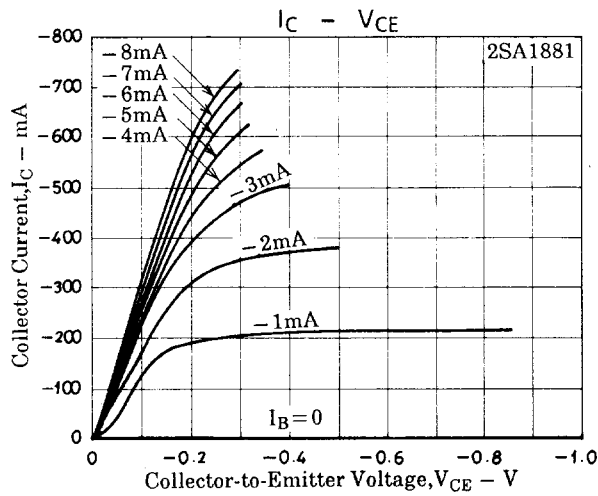
2SA1881/2SC4983

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|----------------|-----------------------------|---------|--------|--------|------|
| | | | min | typ | max | |
| Collector-to-Emitter 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 |
| Base-to-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=(-)500mA, I_B=(-)25mA$ | | (-0.9) | (-1.2) | V |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=-10\mu A, I_E=0$ | (-15) | | | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=-1mA, R_{BE}=\infty$ | (-15) | | | V |
| Emitter-to-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=-10\mu A, I_C=0$ | (-5) | | | V |

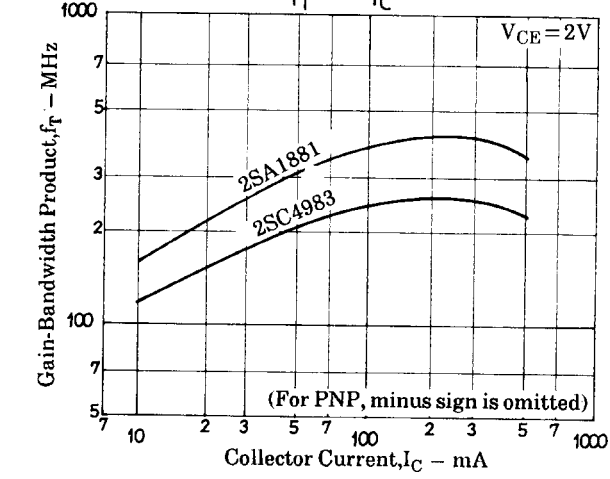
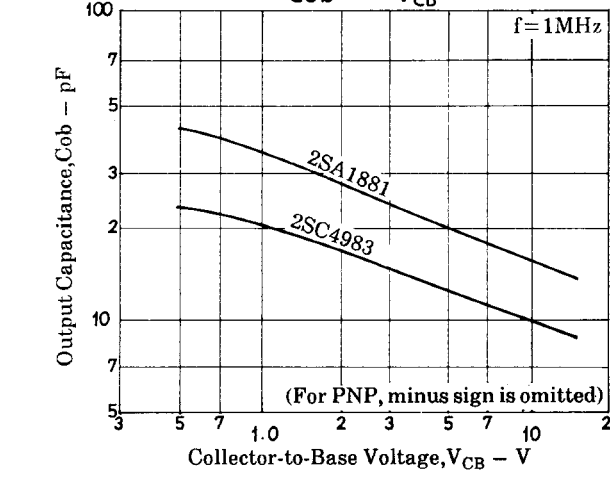
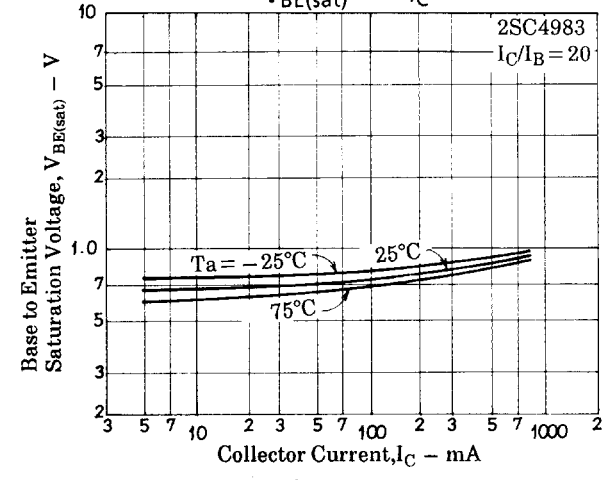
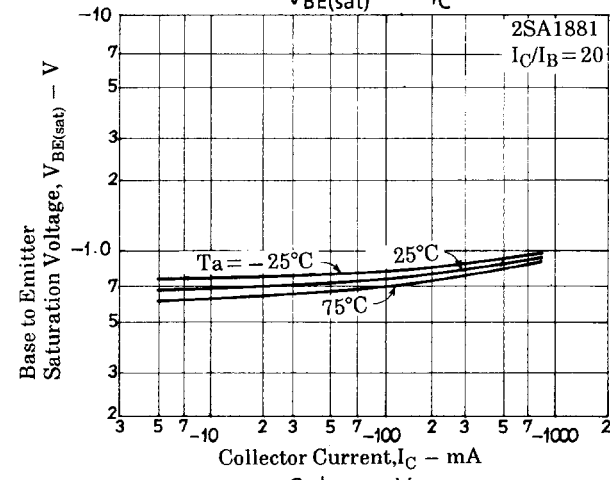
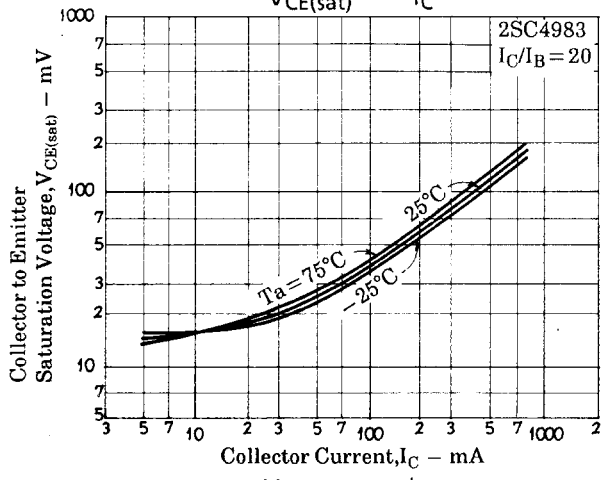
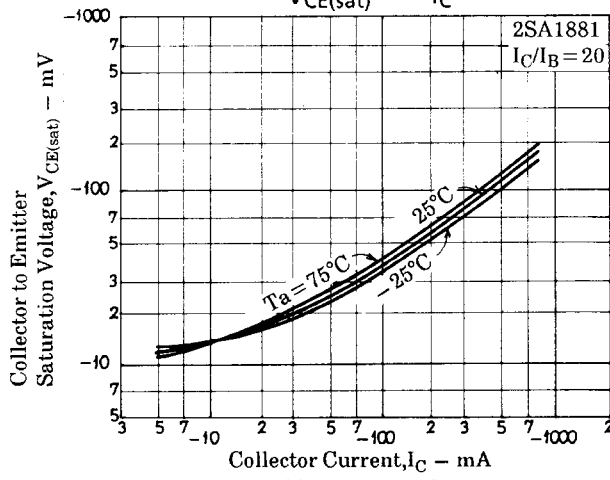
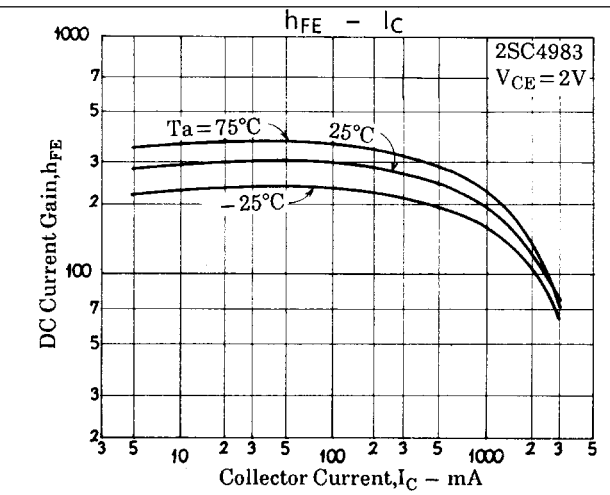
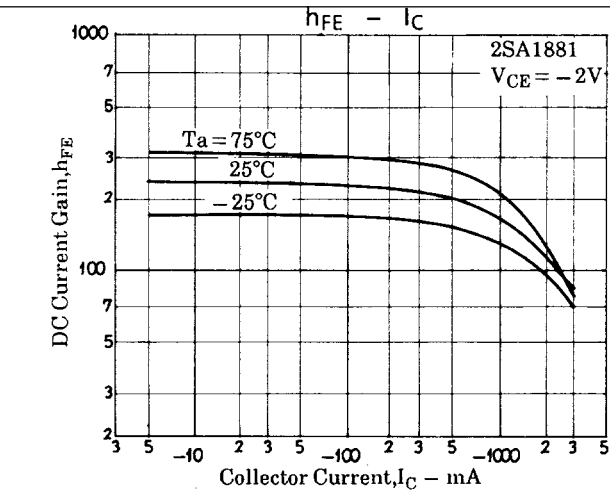
* : The 2SA1881/2SC4983 are classified by 50mA h_{FE} as follows :

| | | |
|-----------|-----------|-----------|
| 135 5 270 | 200 6 400 | 300 7 600 |
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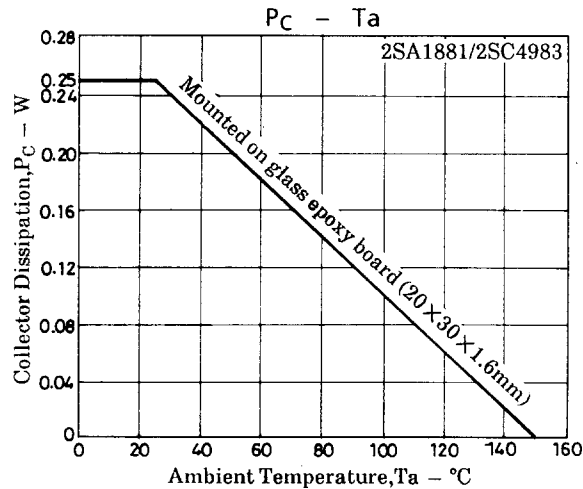
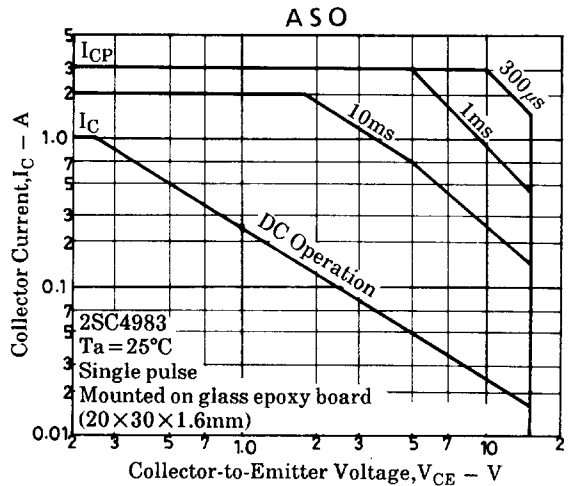
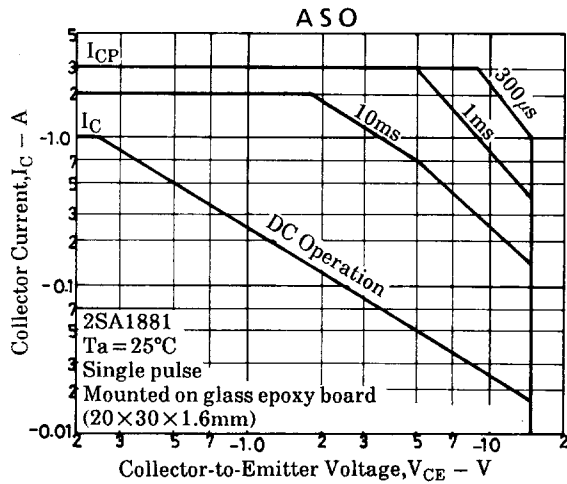
Marking : 2SA1881 : IS
2SC4983 : KN



2SA1881/2SC4983



2SA1881/2SC4983



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