



No.512F

2SB698/2SD734

PNP/NPN Epitaxial Planar Silicon Transistors
 1W AF Output, Electronic Governor,
 DC-DC Converter Applications

() : 2SB698 for audio 1W output.

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

| | | | unit |
|------------------------------|-----------|-------------|------------------|
| Collector to Base Voltage | V_{CB0} | (-)25 | V |
| Collector to Emitter Voltage | V_{CE0} | (-)20 | V |
| Emitter to Base Voltage | V_{EB0} | (-)5 | V |
| Collector Current | I_C | (-)0.7 | A |
| Collector Current(Pulse) | I_{CP} | (-)1.5 | A |
| Collector Dissipation | P_C | 0.6 | W |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

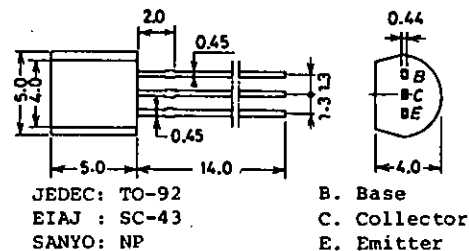
Electrical Characteristics at $T_a=25^\circ\text{C}$

| | | | min | typ | max | unit |
|--------------------------|---------------|--|-------|--------|---------|---------------|
| Collector Cutoff Current | I_{CBO} | $V_{CB}=(-)20\text{V}, I_E=0$ | | | (-)1.0 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=(-)4\text{V}, I_C=0$ | | | (-)1.0 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}=(-)2\text{V}, I_C=(-)50\text{mA}$ | 60* | | 560* | |
| | $h_{FE(2)}$ | $V_{CE}=(-)2\text{V}, I_C=(-)500\text{mA}$ | 50 | | | |
| Gain-Bandwidth Product | f_T | $V_{CE}=(-)10\text{V}, I_C=(-)50\text{mA}$ | | 250 | | MHz |
| Output Capacitance | c_{ob} | $V_{CB}=(-)10\text{V}, f=1\text{MHz}$ | | (13) | | pF |
| C-E Saturation Voltage | $V_{CE(sat)}$ | $I_C=(-)500\text{mA}, I_B=(-)50\text{mA}$ | | (-0.2) | (-0.45) | V |
| | | | | 0.13 | 0.3 | V |
| B-E Saturation Voltage | $V_{BE(sat)}$ | $I_C=(-)500\text{mA}, I_B=(50\text{mA})$ | | (-)0.9 | | V |
| C-B Saturation Voltage | $V_{(BR)CB0}$ | $I_C=(-)10\mu\text{A}, I_E=0$ | (-)25 | | | V |
| C-E Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=(-)1\text{mA}, R_{BE}=\infty$ | (-)20 | | | V |
| E-B Breakdown Voltage | $V_{(BR)EBO}$ | $I_C=(-)10\mu\text{A}, I_C=0$ | (-)5 | | | V |

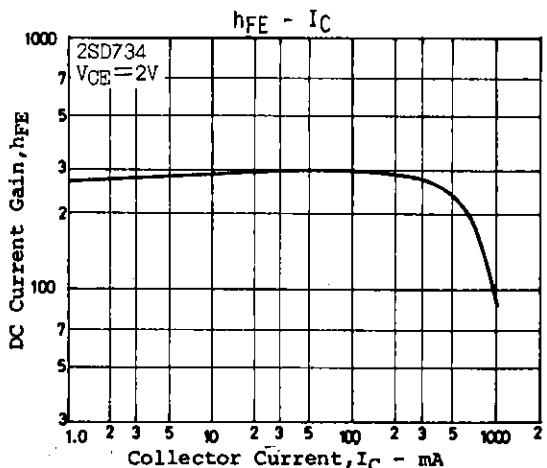
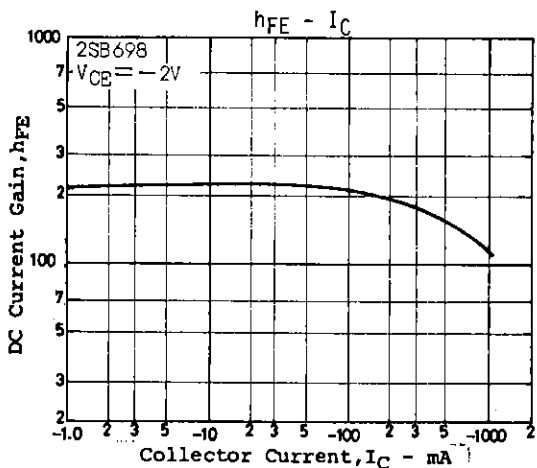
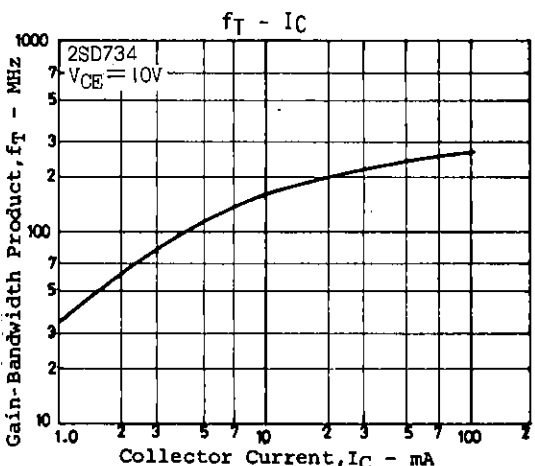
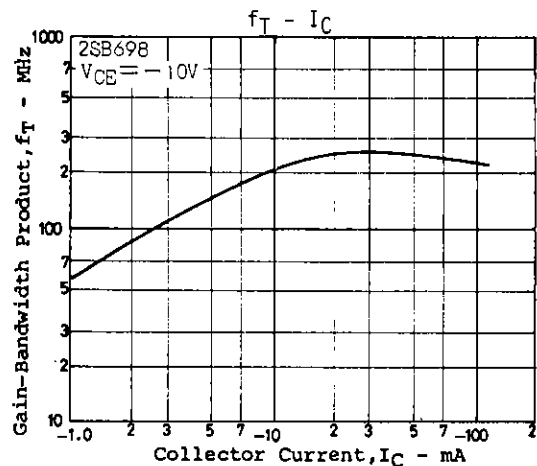
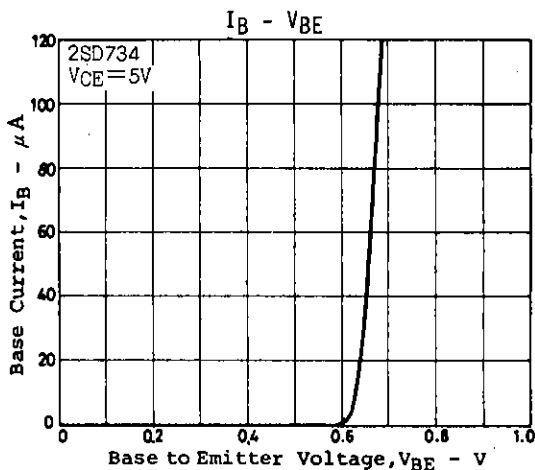
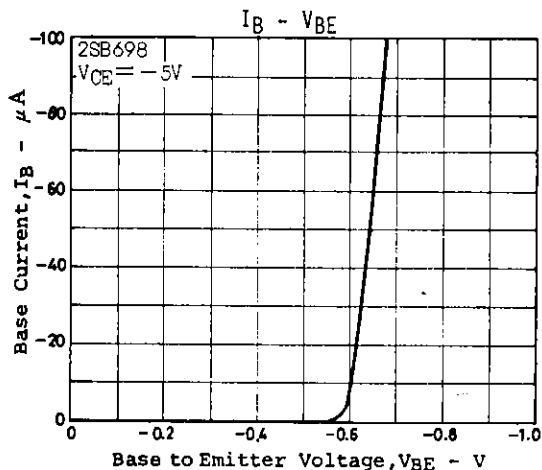
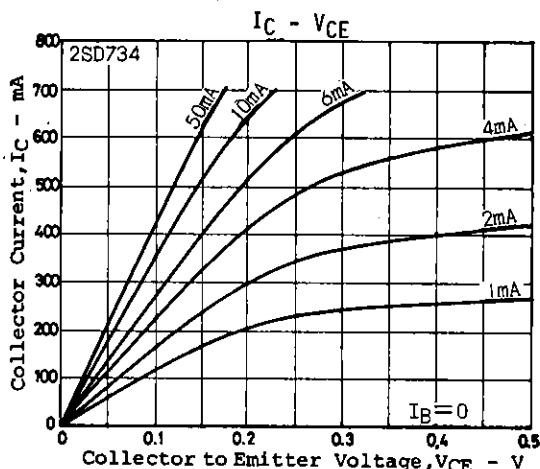
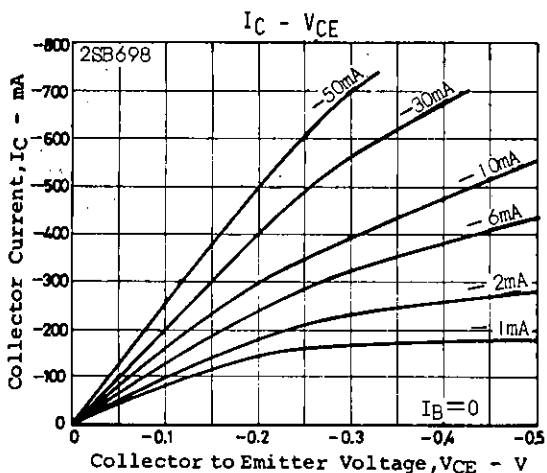
*:2SB698/2SD734 are classified by 50mA h_{FE} as follows:

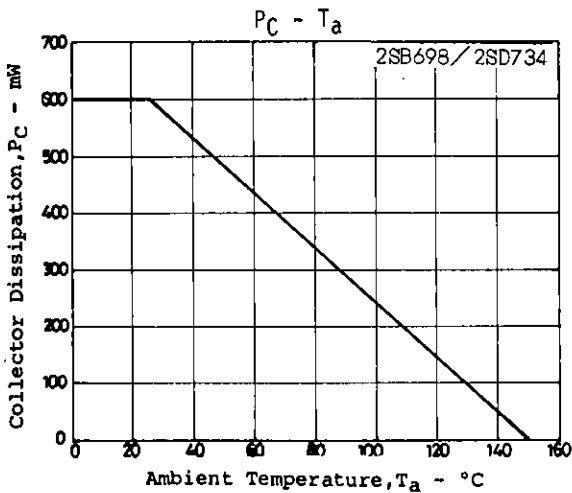
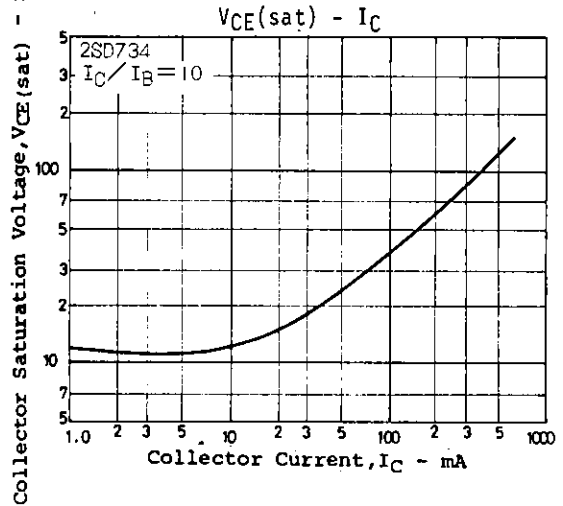
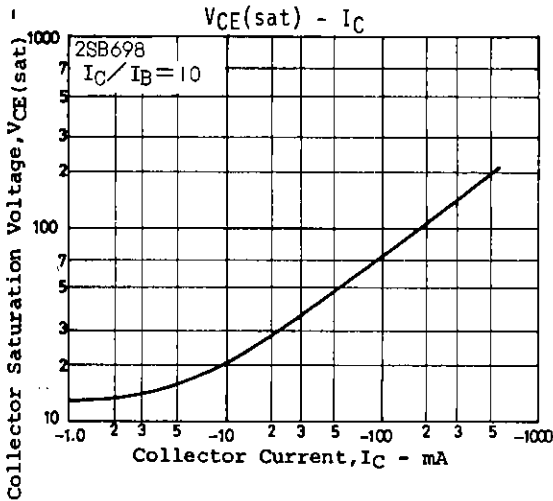
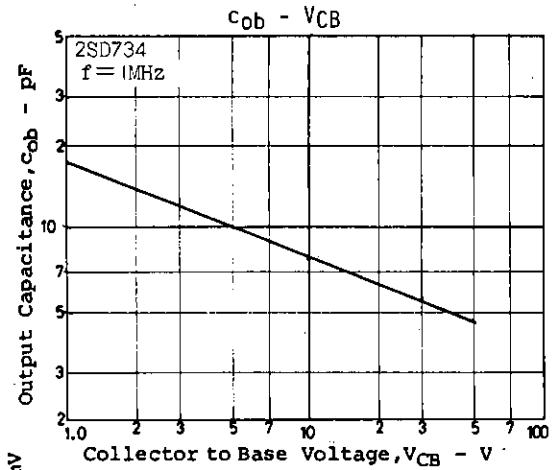
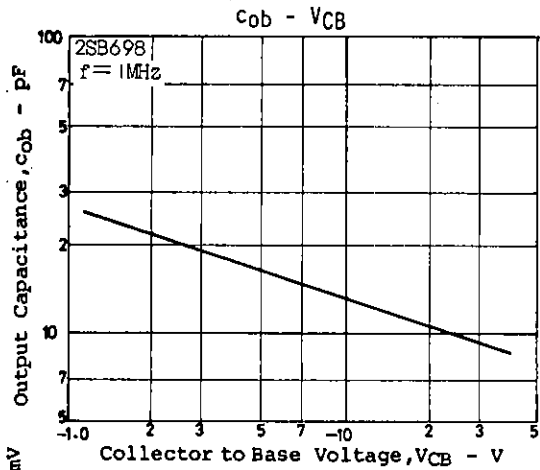
| | | | | | | | | | | | |
|----|---|-----|-----|---|-----|-----|---|-----|-----|---|-----|
| 60 | D | 120 | 100 | E | 200 | 160 | F | 320 | 280 | G | 560 |
|----|---|-----|-----|---|-----|-----|---|-----|-----|---|-----|

Package Dimensions 2003A (unit: mm)



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