



2SA1208/2SC2910

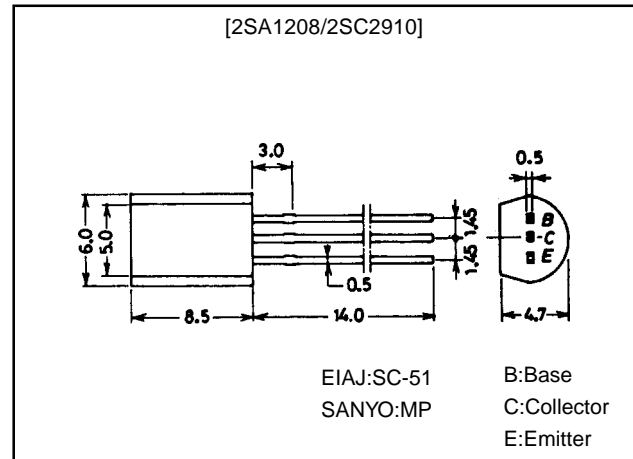
High-Voltage Switching Audio 80W Output Predriver Applications

Features

- Adoption of FBET process.
- High breakdown voltage.
- Excellent linearity of h_{FE} and small C_{ob} .
- Fast switching speed.

Package Dimensions

unit:mm
2006A



() : 2SA1208

Specifications

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

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|-----------|------------|-------------|------------------|
| Collector-to-Base Voltage | V_{CB0} | | (-)180 | V |
| Collector-to-Emitter Voltage | V_{CEO} | | (-)160 | V |
| Emitter-to-Base Voltage | V_{EBO} | | (-)5 | V |
| Collector Current | I_C | | (-)70 | mA |
| Collector Current (Pulse) | I_{CP} | | (-)140 | mA |
| Collector Dissipation | P_C | | 900 | mW |
| Junction Temperature | T_j | | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +150 | $^\circ\text{C}$ |

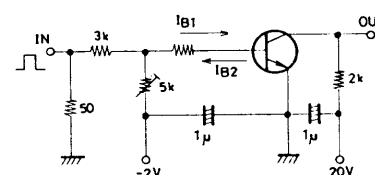
Electrical Characteristics at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|---------------|--|---------|-----------------|---------------|---------------|
| | | | min | typ | max | |
| Collector Cutoff Current | I_{CB0} | $V_{CB}=(-)80\text{V}, I_E=0$ | | | (-)0.1 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=(-)4\text{V}, I_C=0$ | | | (-)0.1 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=(-)5\text{V}, I_C=(-)10\text{mA}$ | 100* | | 400* | |
| Gain-Bandwidth Product | f_T | $V_{CE}=(-)10\text{V}, I_C=(-)10\text{mA}$ | | 150 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB}=(-)10\text{V}, f=1\text{MHz}$ | | (2.5)2.0 | | pF |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=(-)30\text{mA}, I_B=(-)3\text{mA}$ | | 0.08 (-0.14) | 0.3 (-0.4) | V |
| Turn-ON Time | t_{on} | See specified Test Circuit | | 0.1 | | μs |
| Fall Time | t_f | See specified Test Circuit | | 0.2 | | μs |
| Storage Time | t_{stg} | See specified Test Circuit | | 1.0 | | μs |

* : The 2SA1208/2SC2910 are classified by 10mA h_{FE} are follows :

| | | |
|-----------|-----------|-----------|
| 100 R 200 | 140 S 280 | 200 T 400 |
|-----------|-----------|-----------|

Switching Time Test Circuit

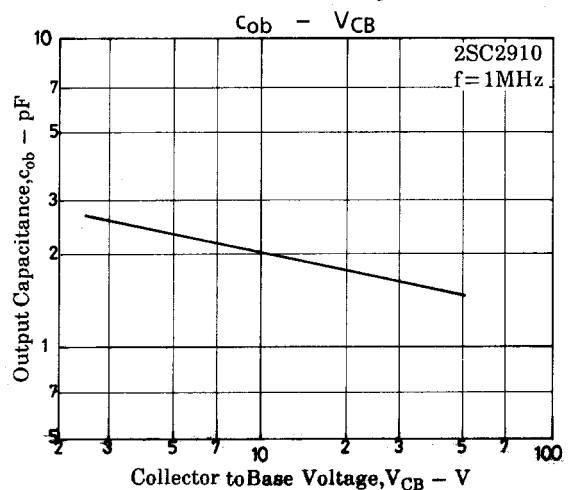
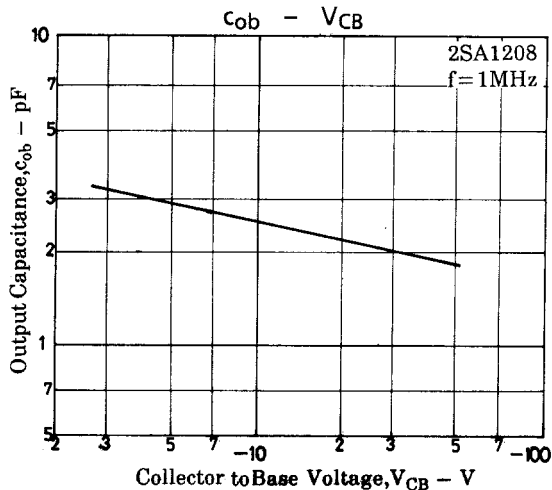
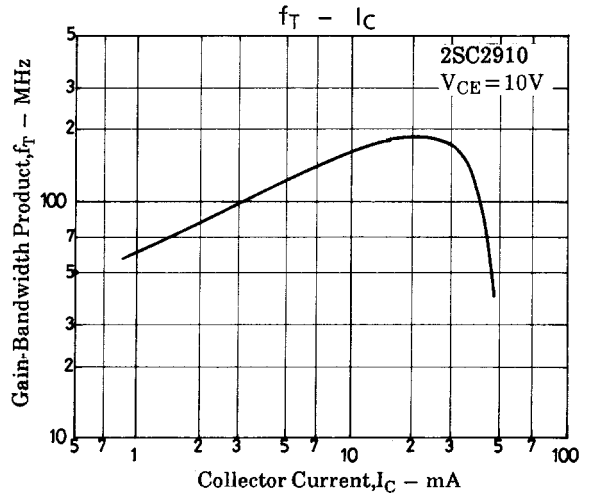
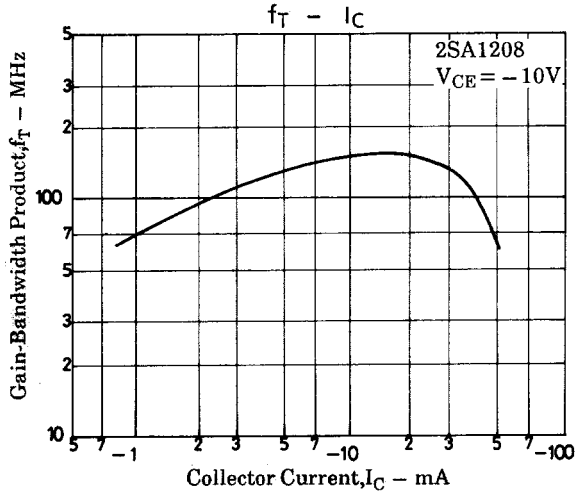
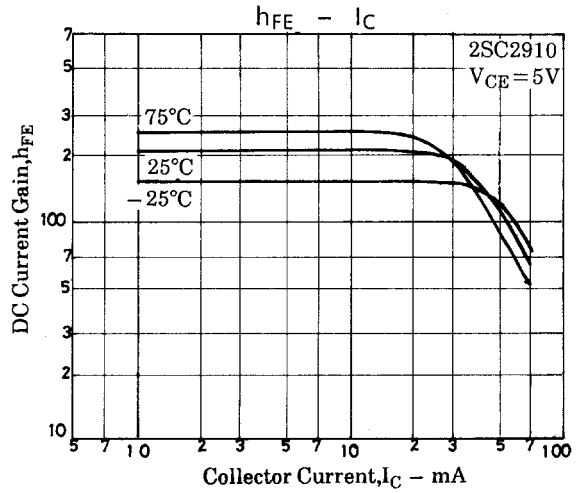
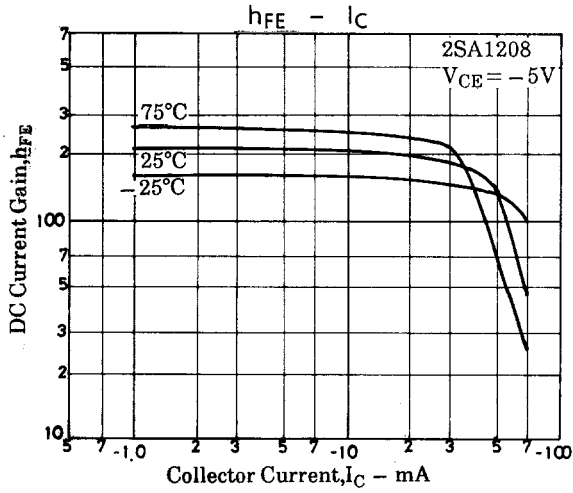
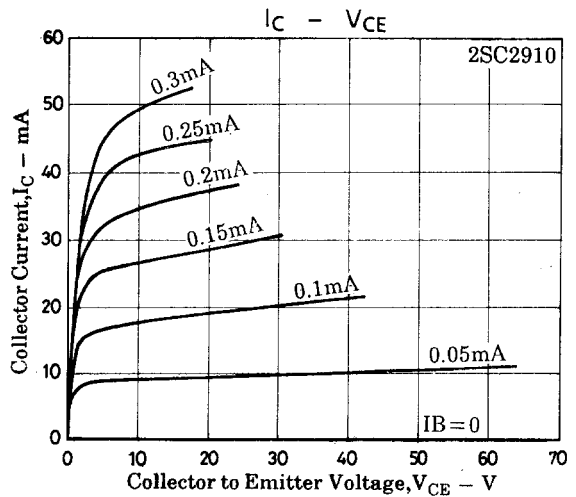
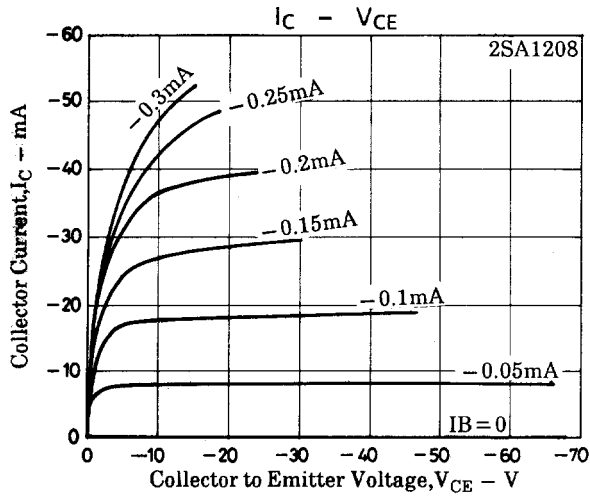


$I_C=10I_{B1}=-10I_{B2}=10\text{mA}$ (For PNP, the polarity is reversed)
Unit (resistance : Ω , capacitance : F)

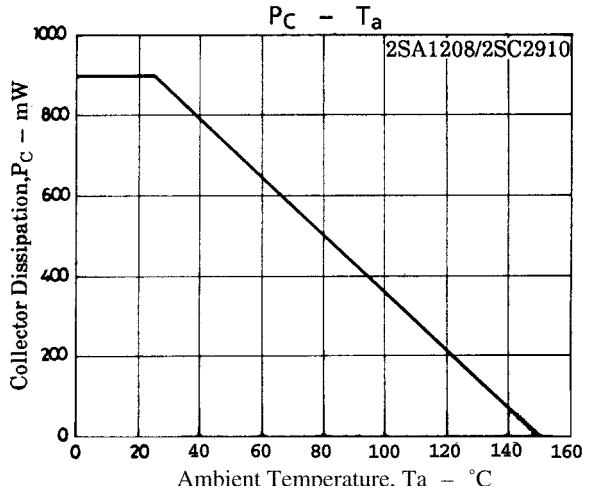
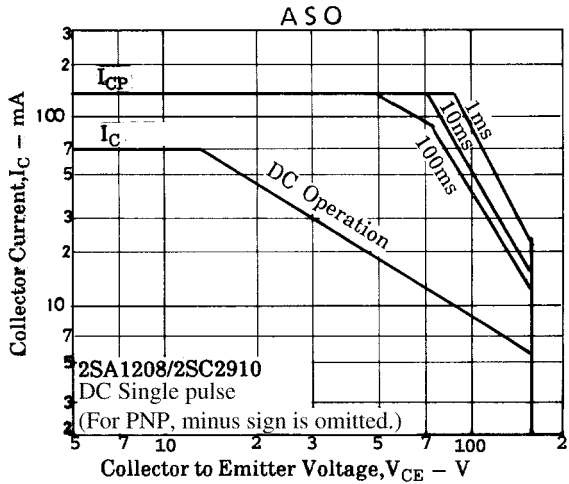
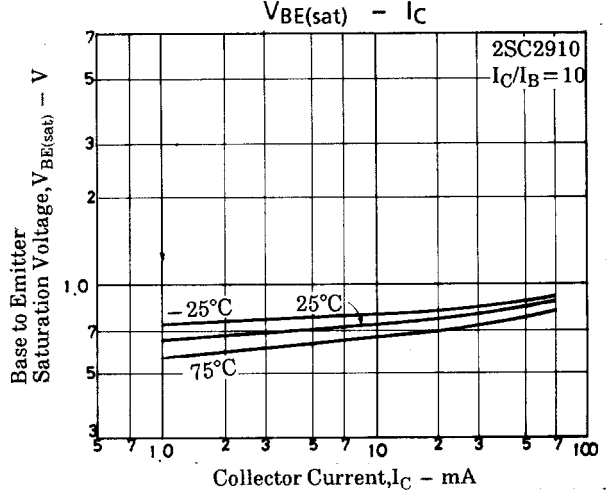
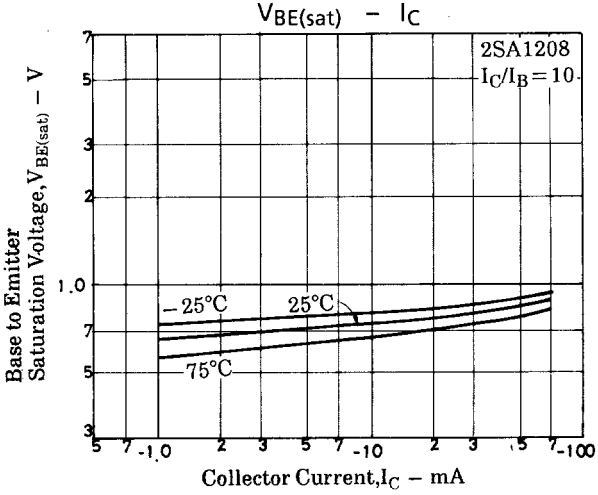
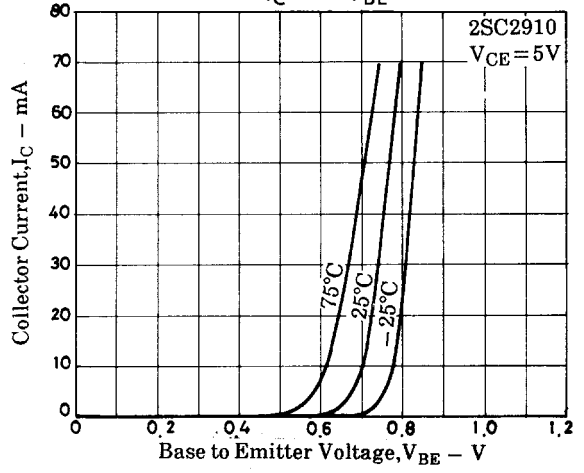
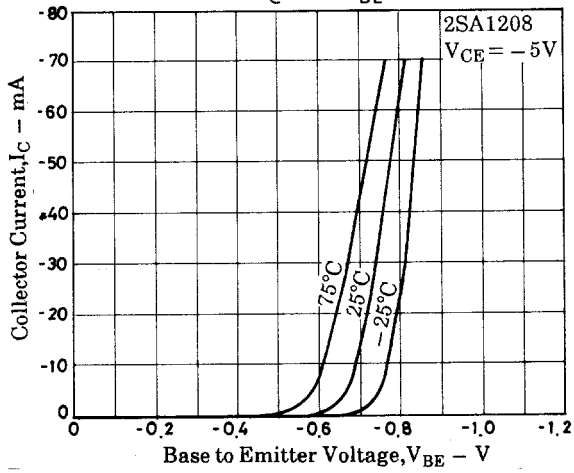
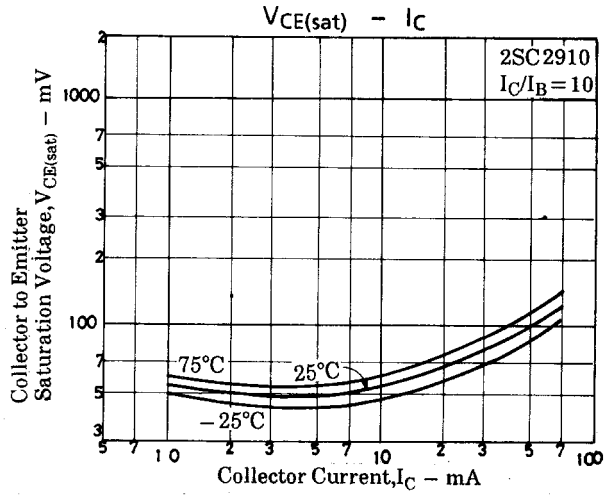
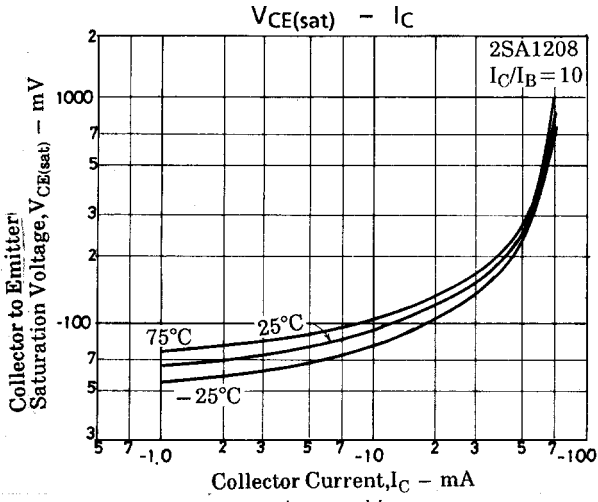
SANYO Electric Co.,Ltd. Semiconductor Business Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

2SA1208/2SC2910



2SA1208/2SC2910



- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of July, 1998. Specifications and information herein are subject to change without notice.