

| | | |
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| SANYO | No.3709 | 2SA1798 |
| | | PNP Epitaxial Planar Silicon Transistor 20V/8A Switching Applications |

Features

- Adoption of MBIT processes.
- Low saturation voltage.
- Fast switching speed.
- Large current capacity.

Absolute Maximum Ratings at Ta = 25°C

| | | | unit |
|------------------------------|------------------|-------------|------|
| Collector-to-Base Voltage | V _{CB0} | -25 | V |
| Collector-to-Emitter Voltage | V _{CEO} | -20 | V |
| Emitter-to-Base Voltage | V _{EBO} | -5 | V |
| Collector Current | I _C | -8 | A |
| Collector Current (Pulse) | I _{CP} | -12 | A |
| Base Current | I _B | -1.5 | A |
| Collector Dissipation | P _C | 1.5 | W |
| | | 10 | W |
| | | 150 | °C |
| Junction Temperature | T _j | | |
| Storage Temperature | T _{stg} | -55 to +150 | °C |

T_c = 25°C

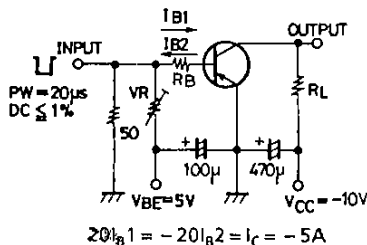
Electrical Characteristics at Ta = 25°C

| | | | min | typ | max | unit |
|--------------------------|----------------------|--|------|------|------|------|
| Collector Cutoff Current | I _{CB0} | V _{CB} = -20V, I _E = 0 | | | -1 | μA |
| Emitter Cutoff Current | I _{EBO} | V _{EB} = -4V, I _C = 0 | | | -1 | μA |
| DC Current Gain | h _{FE} (1) | V _{CE} = -2V, I _C = -500mA | 100※ | | 400※ | |
| | h _{FE} (2) | V _{CE} = -2V, I _C = -6A | 60 | | | |
| Gain-Bandwidth Product | f _T | V _{CE} = -2V, I _C = -500mA | | 200 | | MHz |
| C-E Saturation Voltage | V _{CE(sat)} | I _C = -5A, I _B = -250mA | -220 | -400 | | mV |
| B-E Saturation Voltage | V _{BE(sat)} | I _C = -5A, I _B = -250mA | -1 | -1.3 | | V |
| Output Capacitance | C _{ob} | V _{CB} = -10V, f = 1MHz | | 85 | | pF |
| C-B Breakdown Voltage | V _{(BR)CBO} | I _C = -10μA, I _E = 0 | -25 | | | V |
| C-E Breakdown Voltage | V _{(BR)CEO} | I _C = -1mA, R _{BE} = ∞ | -20 | | | V |
| E-B Breakdown Voltage | V _{(BR)EBO} | I _E = -10μA, I _C = 0 | -5 | | | V |
| Turn-ON Time | t _{on} | See specified Test Circuit. | | 30 | | ns |
| Storage Time | t _{stg} | " | | 200 | | ns |
| Fall Time | t _f | " | | 15 | | ns |

※ : The 2SA1798 is classified by 500mA h_{FE} as follows.

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

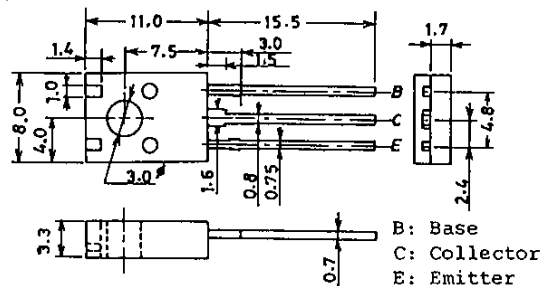
Switching Time Test Circuit



Unit (Resistance : Ω, Capacitance : F)

Package Dimensions 2042A

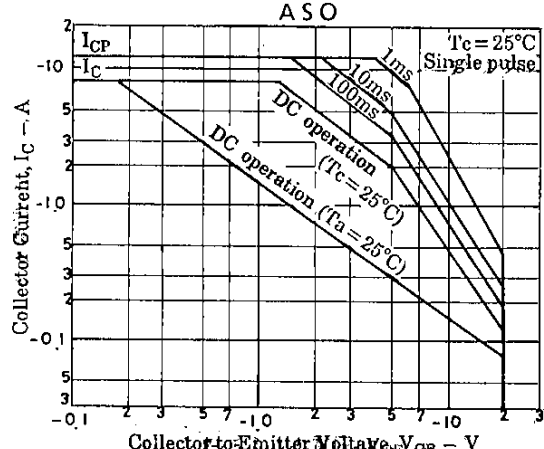
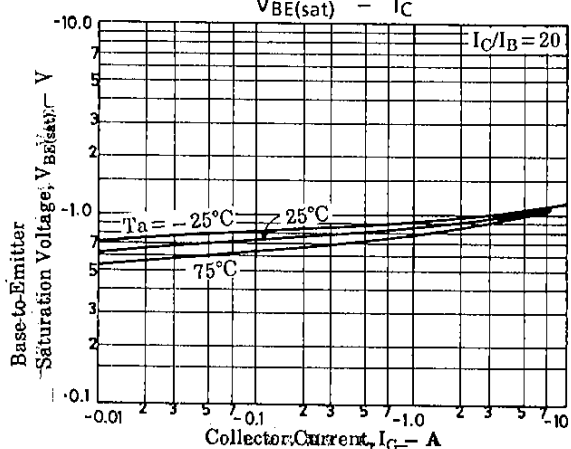
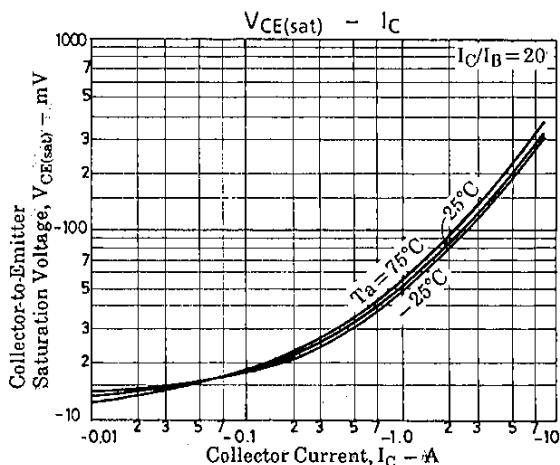
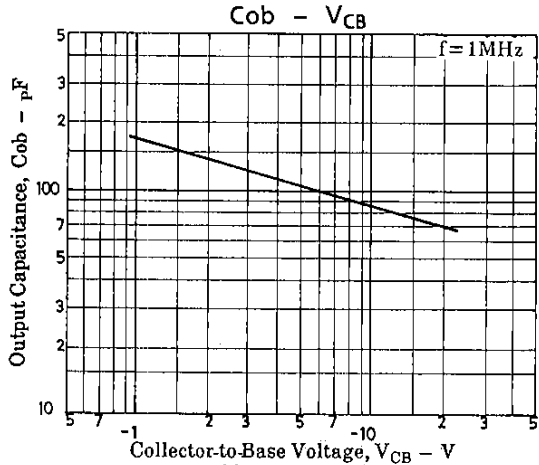
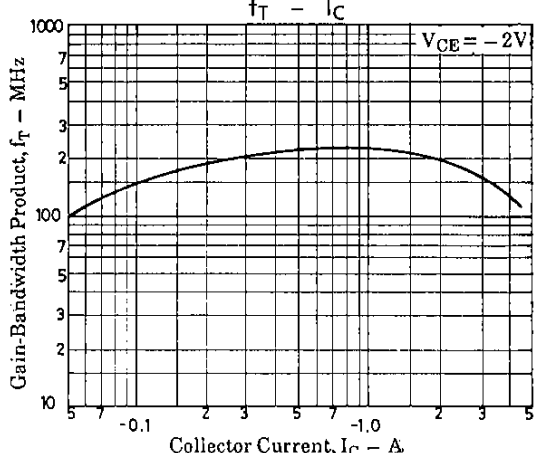
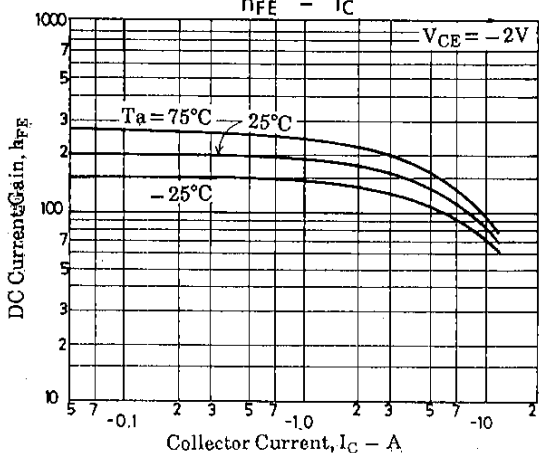
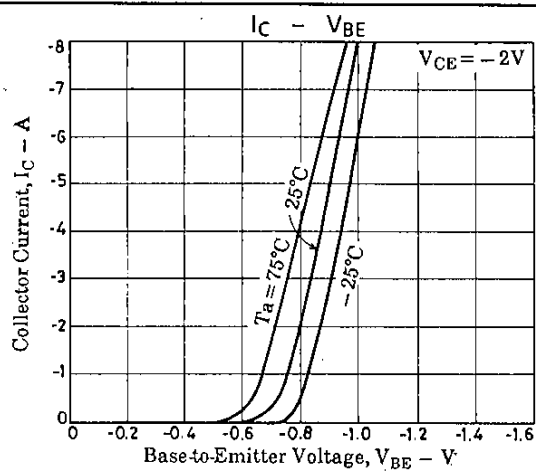
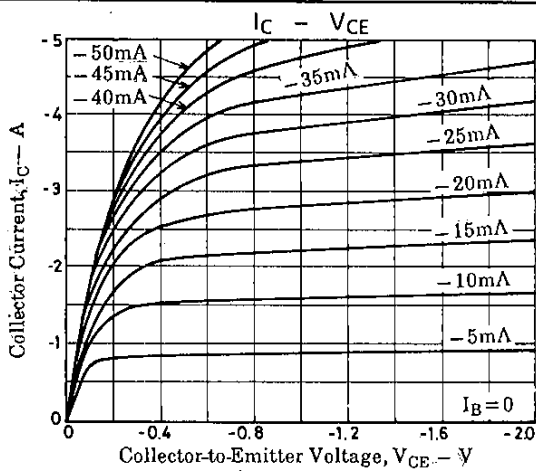
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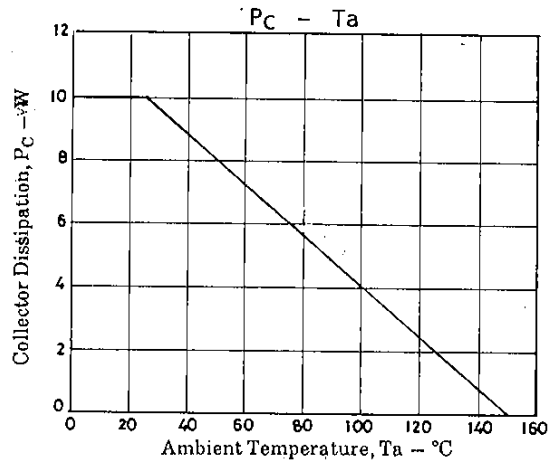
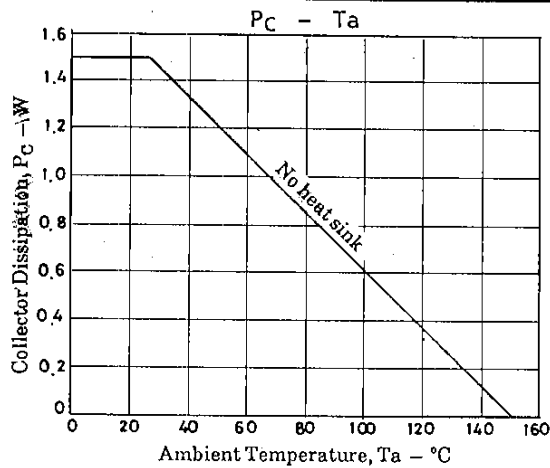


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