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|---|---------|------------------------|
| SANYO | No.544G | 2SA1011/2SC2344 |
| PNP/NPN Epitaxial Planar Silicon Transistors High-Voltage Switching, AF Power Amp, 100W Output Predriver Applications | | |

() : 2SA1011

Maximum Ratings at Ta=25°C

| | | | unit |
|------------------------------|-----------|---------------|------|
| Collector-to-Base Voltage | V_{CBO} | (-) 180 | V |
| Collector-to-Emitter Voltage | V_{CEO} | (-) 160 | V |
| Emitter-to-Base Voltage | V_{EBO} | (-) 6 | V |
| Collector Current | I_C | (-) 1.5 | A |
| Collector Current (Pulse) | I_{CP} | (-) 3 | A |
| Collector Dissipation | P_C | 25 | W |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature | T_{stg} | - 55 to + 150 | °C |

$T_c=25^\circ\text{C}$

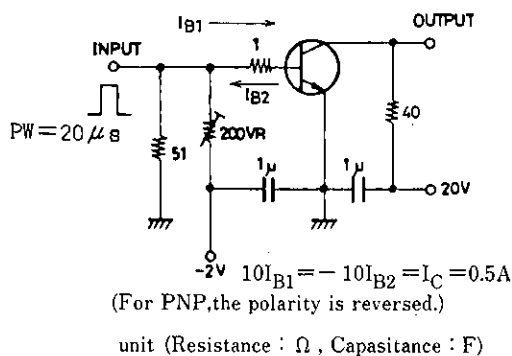
Electrical Characteristics at Ta=25°C

| | | | min | typ | max | unit |
|--------------------------|---------------|--|--------|---------|--------|---------------|
| Collector Cutoff Current | I_{CBO} | $V_{CB} = (-) 120\text{V}, I_E = 0$ | | | (-) 10 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = (-) 4\text{V}, I_C = 0$ | | | (-) 10 | μA |
| DC Current Gain | h_{FE} | $V_{CE} = (-) 5\text{V}, I_C = (-) 300\text{mA}$ | 60 ※ | | 200 ※ | |
| Gain-Bandwidth Product | f_T | $V_{CE} = (-) 10\text{V}, I_C = (-) 50\text{mA}$ | | 100 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB} = (-) 10\text{V}, f = 1\text{MHz}$ | | (30) | | pF |
| | | | | 23 | | pF |
| Base-to-Emitter Voltage | V_{BE} | $V_{CE} = (-) 5\text{V}, I_C = (-) 10\text{mA}$ | | (-) 1.5 | | V |
| C-E Saturation Voltage | $V_{CE(sat)}$ | $I_C = (-) 500\text{mA}, I_B = (-) 50\text{mA}$ | | (- 0.5) | | V |
| | | | | 0.3 | | V |
| C-B Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = (-) 1\text{mA}, I_E = 0$ | | (-) 180 | | V |
| C-E Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = (-) 1\text{mA}, I_{BE} = \infty$ | | (-) 160 | | V |
| E-B Breakdown Voltage | $V_{(BR)EBO}$ | $I_E = (-) 1\text{mA}, I_C = 0$ | | (-) 6 | | V |
| Turn-ON Time | t_{on} | See specified Test Circuit. | (0.29) | 0.15 | | μs |
| Fall Time | t_f | " | (0.19) | 0.48 | | μs |
| Storage Time | t_{stg} | " | (0.48) | 0.81 | | μs |

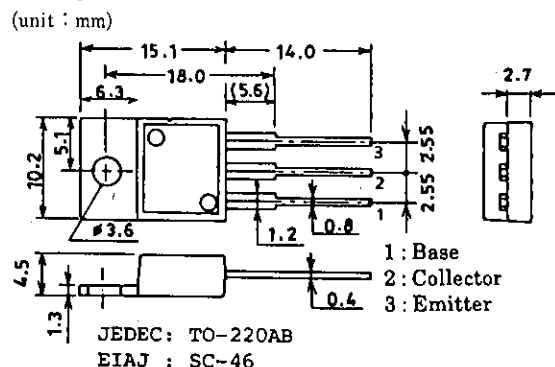
※ The 2SA1011/2SC2344 are classified by 300mA h_{FE} as follows :

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|----|---|-----|-----|---|-----|
| 60 | D | 120 | 100 | E | 200 |
|----|---|-----|-----|---|-----|

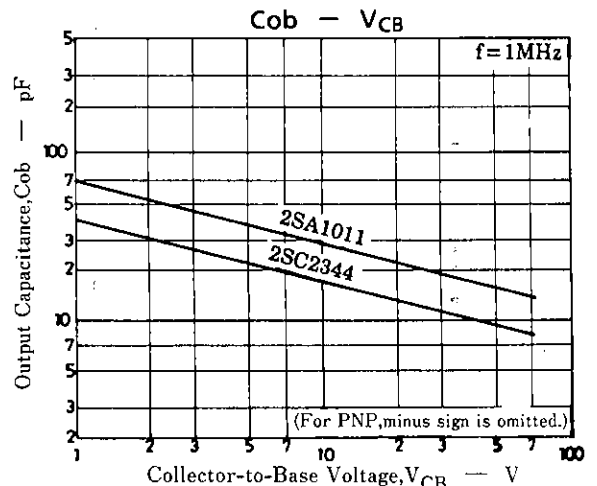
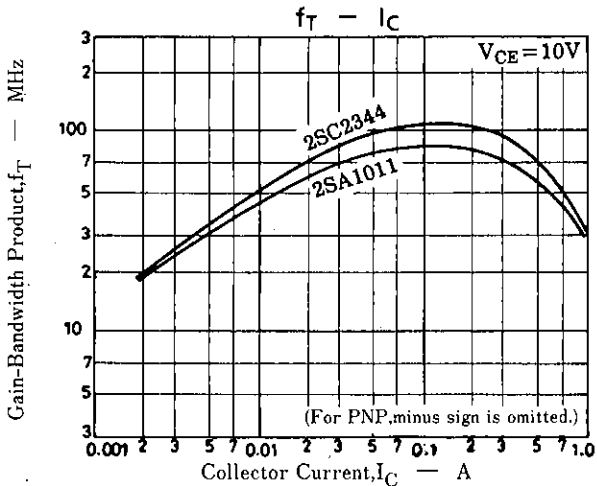
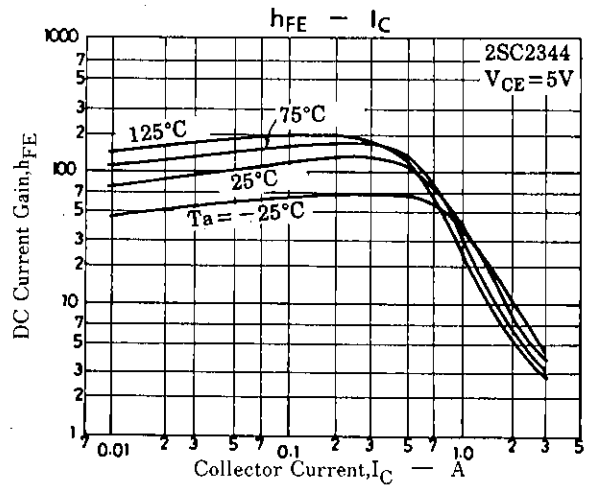
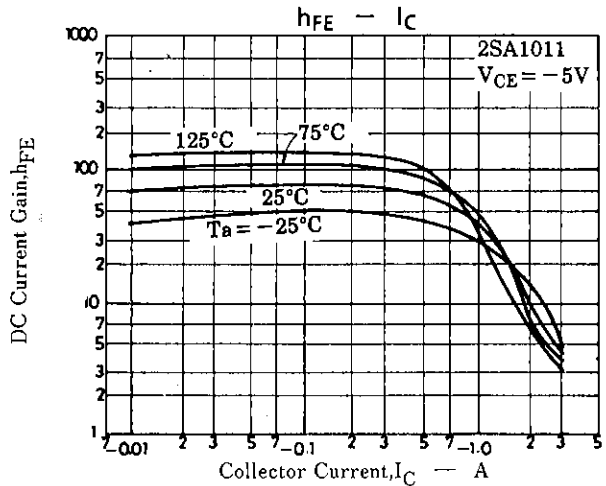
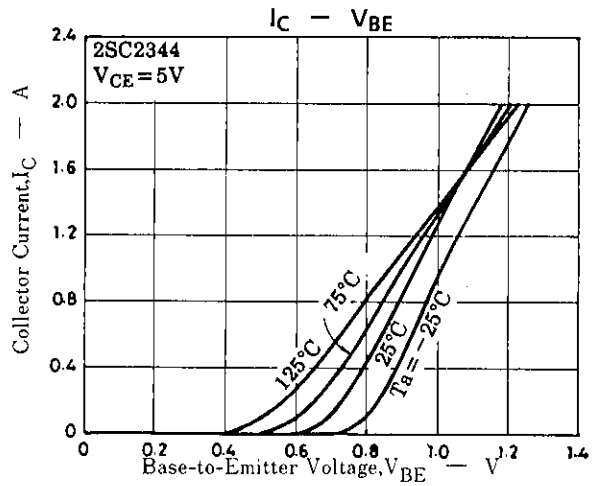
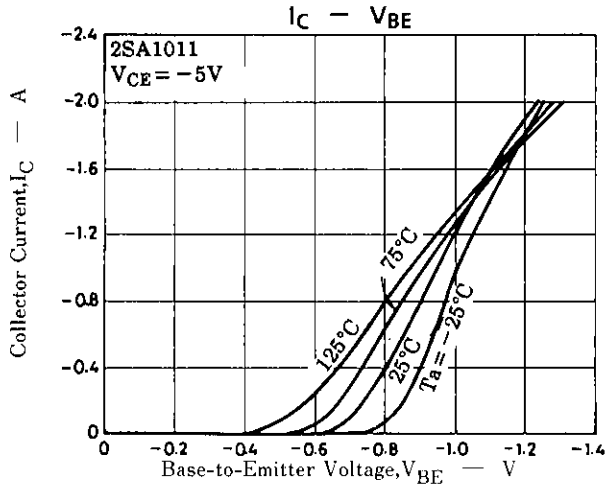
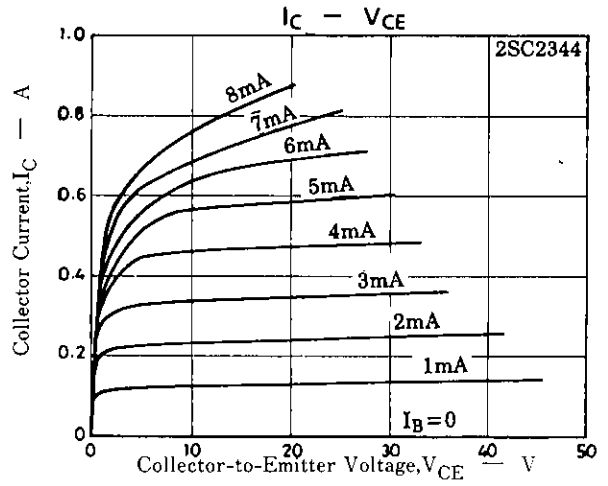
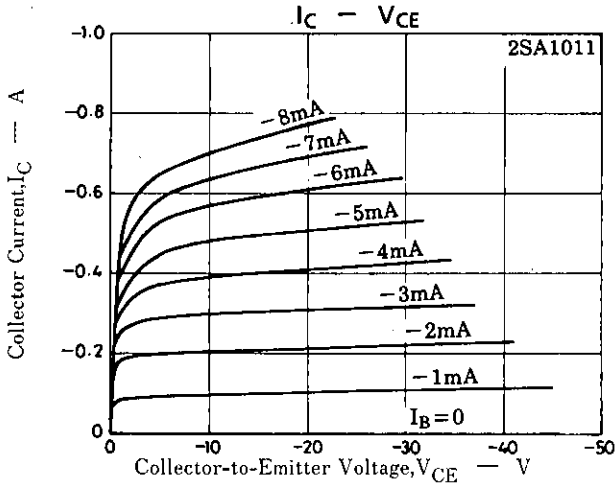
Switching Time Test Circuit

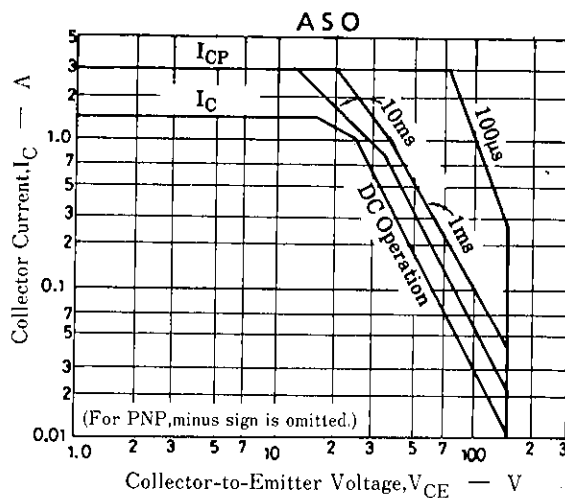
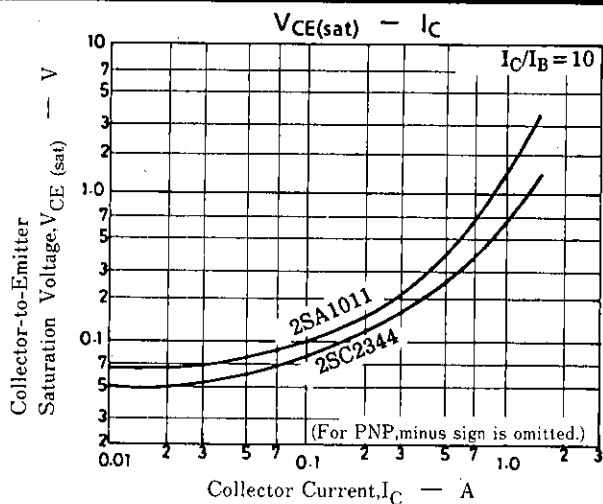


Package Dimensions 2010C



2SA1011/2SC2344





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