



TEN FOUR LTD.
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SANYO SEMICONDUCTOR

2SB507,508
2SD313,314

2SB507,508 — Planar Type Silicon Transistor
2SD313,314 — For AF Power Amplifier Use

- .2SB507,2SB508 and 2SD313,2SD314 are complementary pairs respectively.
- .These are designed for the output stage of 15W to 25W AF power amplifier.
- .2SB507 and 2SB508, or 2SD313 and 2SD314, differ from their care outlines only.
- () shows the case of 2SB507, 2SB508 only.

Absolute Maximum Ratings at Ta=25°C

| | | | |
|------------------------------|------|-------------|----|
| Collector to Base Voltage | VCBO | (-)60 | V |
| Collector to Emitter Voltage | VCEO | (-)60 | V |
| Emitter to Base Voltage | VEBO | (-)5 | V |
| Collector Current | IC | (-)3 | A |
| | icp | (-)8 | A |
| Collector Dissipation | PC | 1.75 | W |
| | | (TC=25°C) | 30 |
| | | | W |
| Junction Temperature | Tj | 150 | °C |
| Storage Temperature | Tstg | -40 to +150 | °C |

Electrical Characteristics at Ta=25°C

| | | | min | typ | max | unit |
|-----------------------------|----------|-----------------------|--------|--------|--------|------|
| Collector Cut Off Current | ICBO | VCB=(-)20V, IE=0 | | | (-)0.1 | mA |
| | ICEO | VCE=(-)60V, RBE=∞ | | | (-)5 | mA |
| Emitter Cut Off Current | IEBO | VEB=(-)4V, IC=0 | | | (-)1 | mA |
| Secondary Breakdown Voltage | VS/B | IC=(-)0.5A, t=1sec | (-)60 | | | V |
| DC Current Gain | *hFE(1) | VCE=(-)2V, IC=(-)1A | 40* | | 320* | |
| | hFE(2) | VCE=(-)2V, IC=(-)0.1A | 40 | | | |
| Gain Band Width Product | fT | VCE=(-)5V, IC=(-)0.5A | | 8 | | MHz |
| Output Capacitance | cob | (VCB=(-)10V, f=1MHz) | | (130) | | pF |
| | | | | 65 | | pF |
| C-E Saturation Voltage | VCE(sat) | IC=(-)2A, IB=(-)0.2A | (-)0.4 | (-)1.0 | | V |
| Base to Emitter Voltage | VBE | IC=(-)1A, VCE=(-)2V | | (-)1.5 | | V |

*hFE(1) is classified by 2V 1A hFE as follows:

| | | | | | | | | | | | |
|----|---|----|----|---|-----|-----|---|-----|-----|---|-----|
| 40 | C | 80 | 60 | D | 120 | 100 | E | 200 | 160 | F | 320 |
|----|---|----|----|---|-----|-----|---|-----|-----|---|-----|

Case Outline (unit:mm)

