

Power Transistor (-160V, -1.5A)

2SB1275 / 2SB1236A

●Features

- 1) High breakdown voltage.($BV_{CEO} = -160V$)
- 2) Low collector output capacitance.
(Typ. 30pF at $V_{CB} = 10V$)
- 3) High transition frequency.($f_T = 50MHz$)
- 4) Complements the 2SD1918 / 2SD1857A.

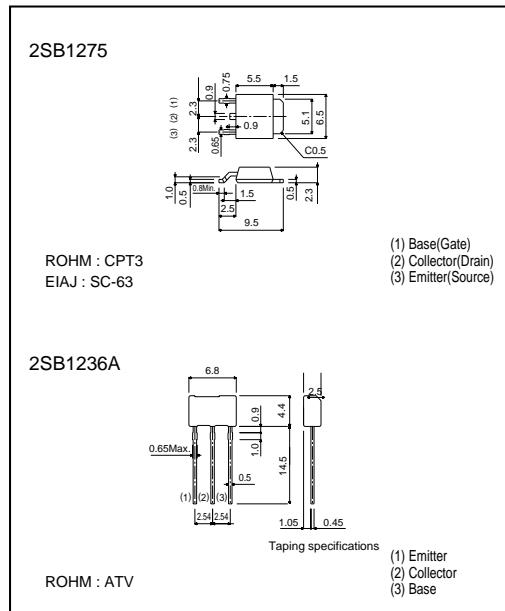
●Absolute maximum ratings ($T_a = 25^{\circ}C$)

| Parameter | Symbol | Limits | Unit |
|-----------------------------|-----------|--------------|-----------------------------|
| Collector-base voltage | V_{CBO} | -160 | V |
| Collector-emitter voltage | V_{CEO} | -160 | V |
| Emitter-base voltage | V_{EBO} | -5 | V |
| Collector current | I_C | -1.5 -3 | A(DC) A(Pulse) *1 |
| Collector power dissipation | P_C | 1 10 1 | W($T_c=25^{\circ}C$) W *2 |
| Junction temperature | T_J | 150 | $^{\circ}C$ |
| Storage temperature | T_{STG} | -55 +150 | $^{\circ}C$ |

* 1 Single pulse $P_w=100ms$

* 2 Printed circuit board 1.7mm thick, collector plating 1cm² or larger.

●External dimensions (Units : mm)



●Packaging specifications and hFE

| Type | 2SB1275 | 2SB1236A |
|------------------------------|---------|----------|
| Package | CPT3 | ATV |
| hFE | NP | PQ |
| Code | TL | TV2 |
| Basic ordering unit (pieces) | 2500 | 2500 |

●Electrical characteristics ($T_a = 25^{\circ}C$)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|--------------------------------------|---------------|----------|------|------------|---------|---|
| Collector-base breakdown voltage | BV_{CBO} | -160 | - | - | V | $I_C = -50\mu A$ |
| Collector-emitter breakdown voltage | BV_{CEO} | -160 | - | - | V | $I_C = -1mA$ |
| Emitter-base breakdown voltage | BV_{EBO} | -5 | - | - | V | $I_E = -50\mu A$ |
| Collector cutoff current | I_{CBO} | - | - | -1 | μA | $V_{CB} = -120V$ |
| Emitter cutoff current | I_{EBO} | - | - | -1 | μA | $V_{EB} = -4V$ |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | - | - | -2 | V | $I_C/I_S = -1A/-0.1A$ * |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | - | - | -1.5 | V | $I_C/I_S = -1A/-0.1A$ * |
| DC current transfer ratio | hFE | 56 82 | - | 180 270 | - | $V_{CE} = -5V$, $I_C = -0.1A$ |
| Transition frequency | f_T | - | 50 | - | MHz | $V_{CE} = -5V$, $I_E = 0.1A$, $f = 30MHz$ |
| Output capacitance | C_{OB} | - | 30 | - | pF | $V_{CB} = -10V$, $I_E = 0A$, $f = 1MHz$ |

*Measured using pulse current.