

Power Transistor (100V , 2A)

2SD2195 / 2SD1980 / 2SD1867

●Features

- 1) Darlington connection for high DC current gain.
- 2) Built-in resistor between base and emitter.
- 3) Built-in damper diode.
- 4) Complements the 2SB1580 / 2SB1316.

●Absolute maximum ratings (Ta = 25°C)

| Parameter | Symbol | Limits | Unit |
|-----------------------------|------------------|----------|-------------------------|
| Collector-base voltage | V _{CB0} | 100 | V |
| Collector-emitter voltage | V _{CE0} | 100 | V |
| Emitter-base voltage | V _{EB0} | 6 | V |
| Collector current | I _c | 2 | A(DC) |
| | | 3 | A(Pulse) *1 |
| Collector power dissipation | P _c | 2 | W *2 |
| | | 1 | W(T _c =25°C) |
| | | 10 | W |
| Junction temperature | T _J | 150 | °C |
| Storage temperature | T _{stg} | -55~+150 | °C |

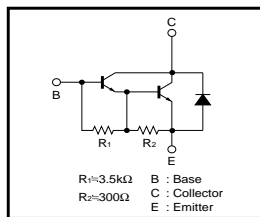
- *1 Single pulse P_w=100ms
 *2 When mounted on a 40 x 40 x 0.7 mm ceramic board.
 *3 Printed circuit board, 1.7mm thick, collector plating 100mm² or larger.

●Packaging specifications and h_{FE}

| Type | 2SD2195 | 2SD1980 | 2SD1867 |
|------------------------------|---------|---------|---------|
| Package | MPT3 | CPT3 | ATV |
| h _{FE} | 1k~10k | 1k~10k | 1k~10k |
| Marking | DP* | - | - |
| Code | T100 | TL | TV2 |
| Basic ordering unit (pieces) | 1000 | 2500 | 2500 |

* Denotes h_{FE}

●Equivalent circuit



●External dimensions (Units : mm)

2SD2195

ROHM : MPT3
EIAJ : SC-62

(1) Base(Gate)
(2) Collector(Drain)
(3) Emitter(Source)

2SD1980

ROHM : CPT3
EIAJ : SC-63

(1) Base(Gate)
(2) Collector(Drain)
(3) Emitter(Source)

2SD1867

Taping specifications

ROHM : ATV

(1) Emitter
(2) Collector
(3) Base

●Electrical characteristics (Ta = 25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|--------------------------------------|----------------------|------|------|-------|------|--|
| Collector-base breakdown voltage | BV _{CB0} | 100 | - | - | V | I _c = 50μA |
| Collector-emitter breakdown voltage | BV _{CE0} | 100 | - | - | V | I _c = 5mA |
| Collector cutoff current | I _{cbo} | - | - | 10 | μA | V _{CB} = 100V |
| Emitter cutoff current | I _{EB0} | - | - | 3 | mA | V _{EB} = 5V |
| Collector-emitter saturation voltage | V _{CE(sat)} | - | - | 1.5 | V | I _c = 1A, I _B = 1mA |
| DC current transfer ratio | h _{FE} | 1000 | - | 10000 | - | V _{CE} = 2V, I _c = 1A |
| Output capacitance | C _{ob} | - | 25 | - | pF | V _{CB} = 10V, I _E = 0A, f = 1MHz |

*Measured using pulse current.

This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.