

High-voltage Amplifier Transistor

(-120V, -50mA)

2SA1579 / 2SA1514K / 2SA1038S

●Features

- 1) High breakdown voltage. ($BV_{CEO} = -120V$)
- 2) Complements the 2SC4102 / 2SC3906K / 2SC2389S.

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

| Parameter | Symbol | Limits | Unit |
|-----------------------------|------------------|----------|------|
| Collector-base voltage | V_{CBO} | -120 | V |
| Collector-emitter voltage | V_{CEO} | -120 | V |
| Emitter-base voltage | V_{EBO} | -5 | V |
| Collector current | I_c | -50 | mA |
| Collector power dissipation | P _c | 0.2 | W |
| | | 0.3 | |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{stg} | -55~+150 | °C |

●Packaging specifications and hFE

| Type | 2SA1579 | 2SA1514K | 2SA1038S |
|------------------------------|---------|----------|----------|
| Package | UMT3 | SMT3 | SPT |
| hFE | RS | RS | RS |
| Marking | R* | R* | - |
| Code | T106 | T146 | TP |
| Basic ordering unit (pieces) | 3000 | 3000 | 5000 |

*Denotes hfc

●External dimensions (Units : mm)

2SA1579

ROHM : UMT3 (1) Emitter
EIAJ : SC-70 (2) Base
JEDEC : SOT-323 (3) Collector

2SA1514K

ROHM : SMT3 (1) Emitter
EIAJ : SC-59 (2) Base
JEDEC : SOT-346 (3) Collector

2SA1038S

ROHM : SPT (1) Emitter
EIAJ : SC-72 (2) Collector
(3) Base

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

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|--------------------------------------|-----------------|------|------|------|---------|---------------------------------------|
| Collector-base breakdown voltage | BV_{CBO} | -120 | - | - | V | $I_c = -50\mu A$ |
| Collector-emitter breakdown voltage | BV_{CEO} | -120 | - | - | V | $I_c = -1mA$ |
| Emitter-base breakdown voltage | BV_{EBO} | -5 | - | - | V | $I_e = -50\mu A$ |
| Collector cutoff current | I_{cbo} | - | - | -0.5 | μA | $V_{CB} = -100V$ |
| Emitter cutoff current | I_{ebo} | - | - | -0.5 | μA | $V_{EB} = -4V$ |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | - | - | -0.5 | V | $I_c/I_e = -10mA/-1mA$ |
| DC current transfer ratio | hFE | 180 | - | 560 | - | $V_{CE} = -6V, I_c = -2mA$ |
| Transition frequency | f _r | - | 140 | - | MHz | $V_{CE} = -12V, I_e = 2mA, f = 30MHz$ |
| Output capacitance | C _{ob} | - | 3.2 | - | pF | $V_{CB} = -12V, I_e = 0A, f = 1MHz$ |