



**2SB1198Q/R**  
**PNP TRANSISTOR**

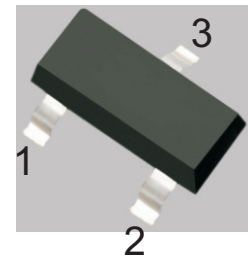
**FEATURES**

- Low  $V_{CE(sat)}$
- High breakdown voltage

**MAXIMUM RATINGS (Ta=25°C unless otherwise noted)**

| Parameter  | Symbol         | Value    | Unit |
|--|----------------|----------|------|
| Collector-Base Voltage                           | $V_{CBO}$      | -80      | V    |
| Collector-Emitter Voltage                        | $V_{CEO}$      | -80      | V    |
| Emitter-Base Voltage                             | $V_{EBO}$      | -5       | V    |
| Collector Current — Continuous                   | $I_C$          | -500     | mA   |
| Collector Power Dissipation                      | $P_C$          | 200      | mW   |
| Operation Junction and Storage Temperature Range | $T_J, T_{stg}$ | -55~+150 | °C   |

**SOT-23**



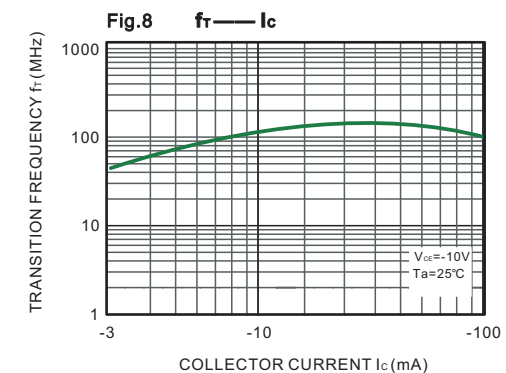
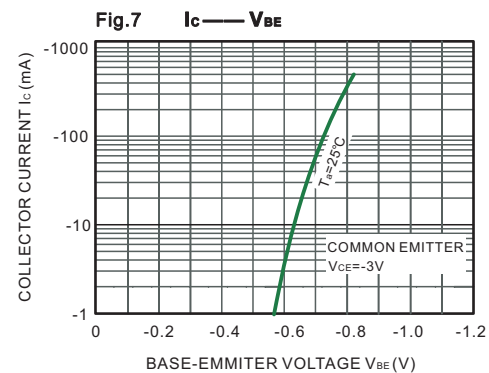
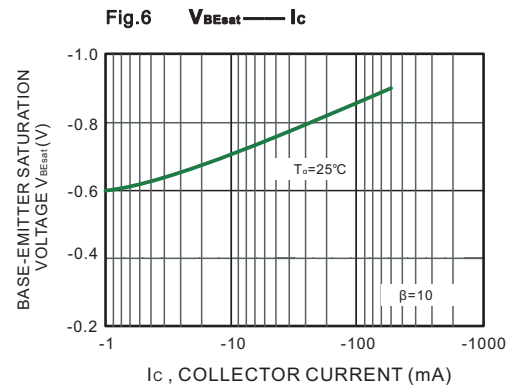
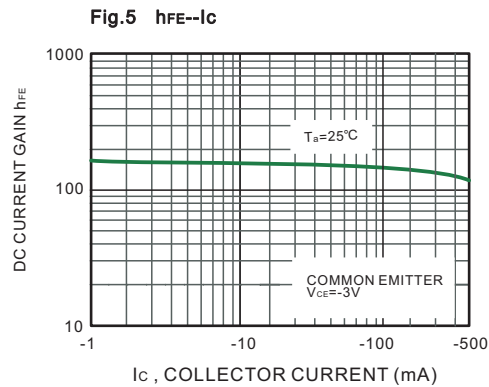
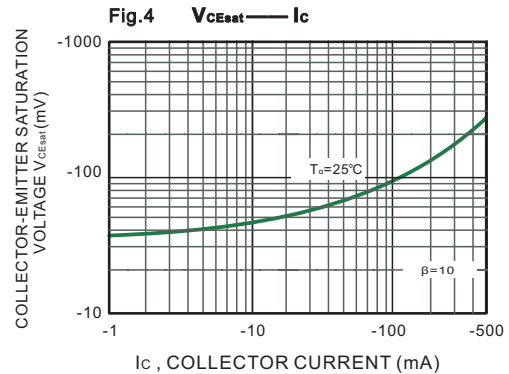
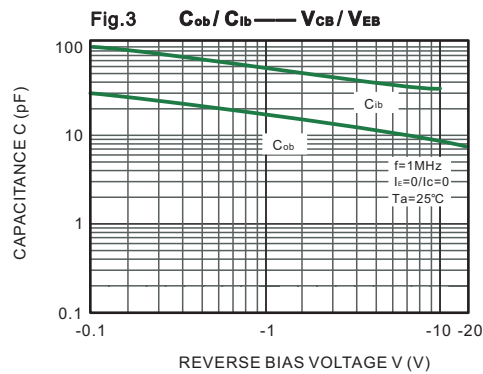
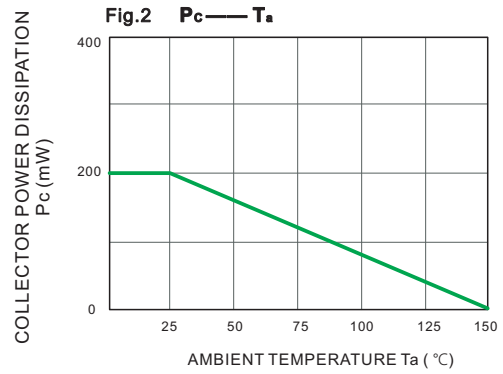
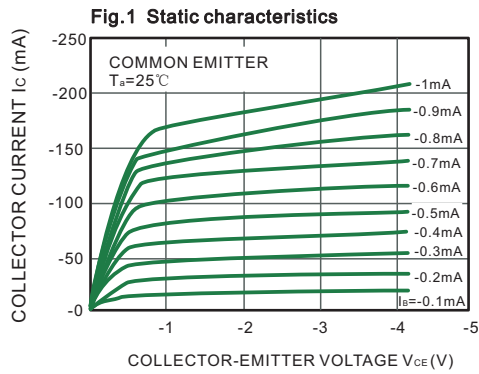
1.BASE  
2.EMITTER  
3.COLLECTOR

**ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)**

| Parameter                            | Symbol        | Test conditions                          | Min | Typ | Max  | Unit    |
|--------------------------------------|---------------|--|-----|-----|------|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -50\mu A, I_E = 0$                | -80 |     |      | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -2mA, I_B = 0$                    | -80 |     |      | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -50\mu A, I_C = 0$                | -5  |     |      | V       |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -50V, I_E = 0$                 |     |     | -0.5 | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -4V, I_C = 0$                  |     |     | -0.5 | $\mu A$ |
| DC current gain                      | $h_{FE}$      | $V_{CE} = -3V, I_C = -100mA$             | 120 |     | 270  |         |
|                                      |               |  | 180 |     | 390  |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -500mA, I_B = -50mA$              |     |     | -0.5 | V       |
| Transition frequency                 | $f_T$         | $V_{CE} = -10V, I_C = -50mA, f = 100MHz$ |     | 180 |      | MHz     |
| Collector output capacitance         | $C_{ob}$      | $V_{CB} = -10V, I_E = 0, f = 1MHz$       |     | 11  |      | pF      |

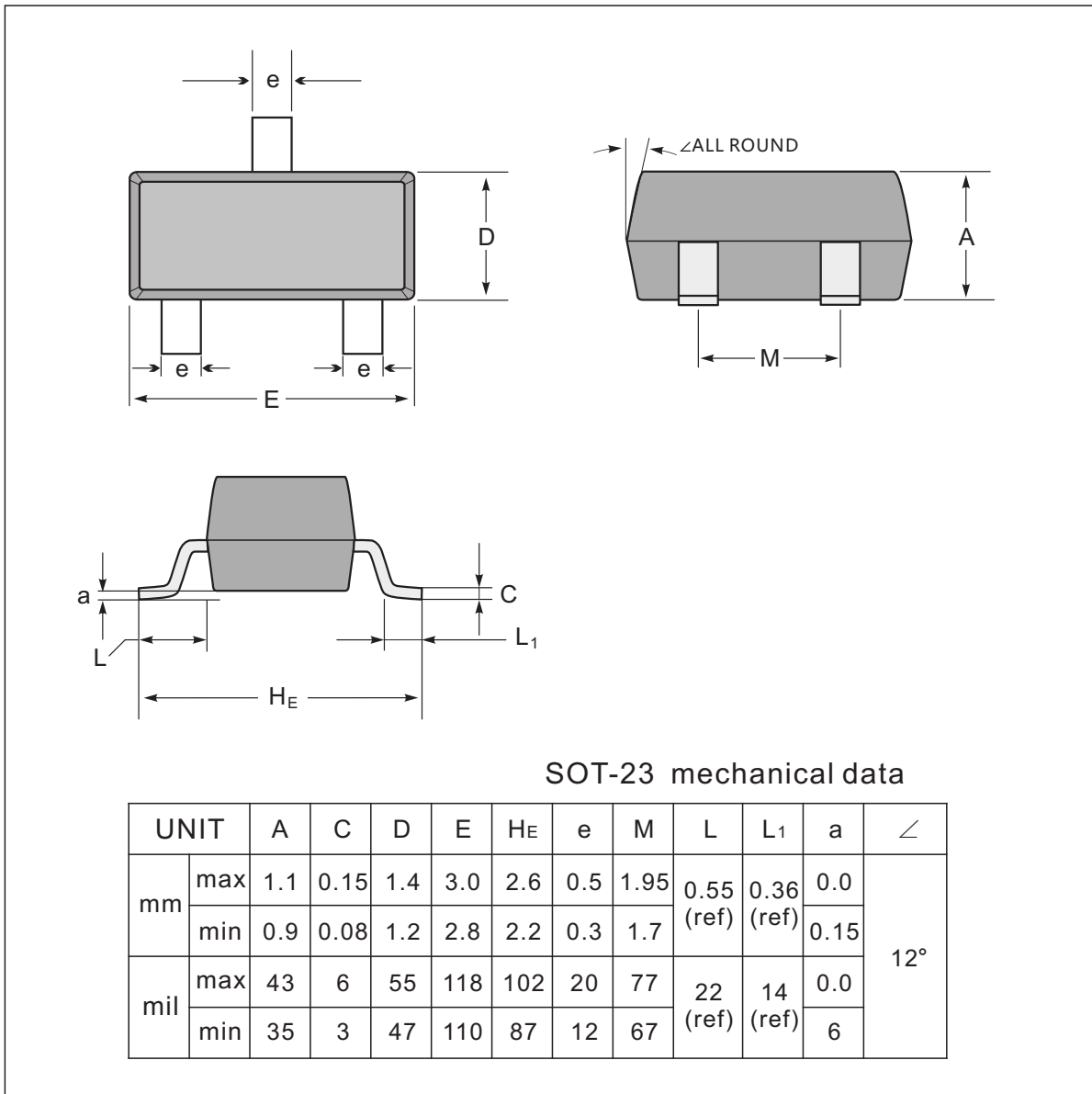


### TYPICAL CHARACTERISTICS

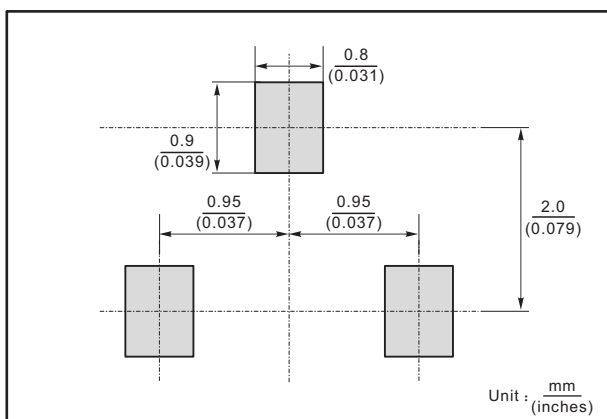




### SOT-23 Package Outline Dimensions



#### The recommended mounting pad size



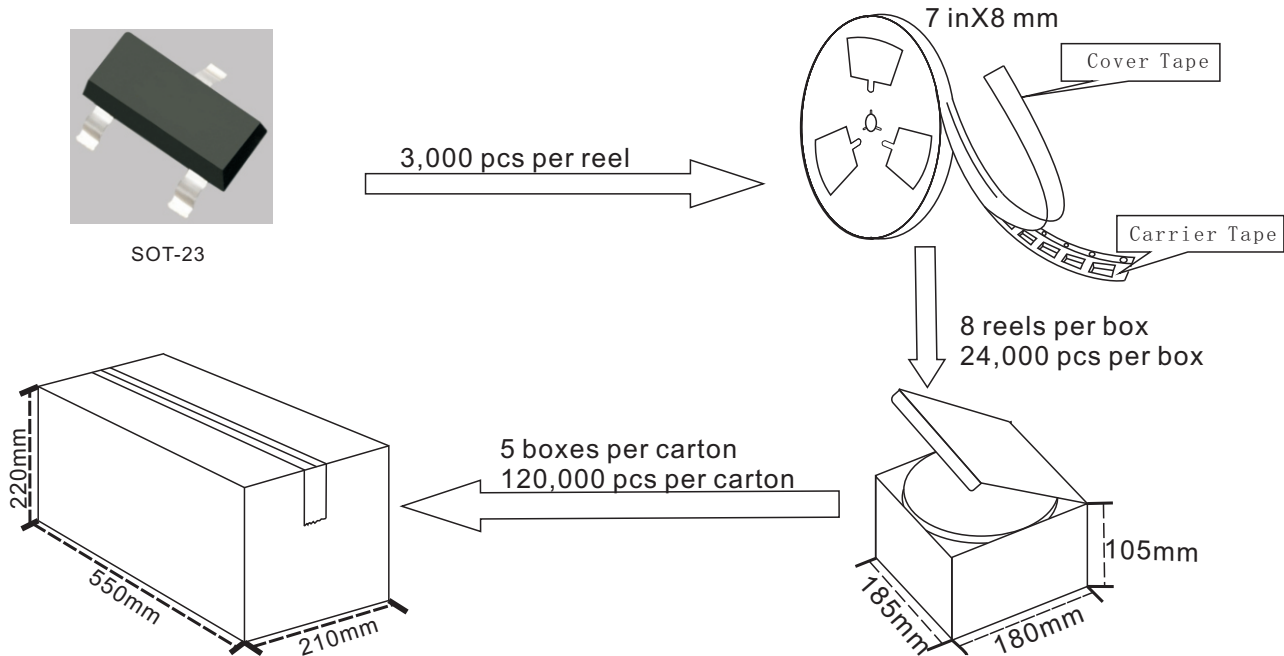
#### Marking

| Type number | Marking code |
|-------------|--------------|
| 2SB1198Q    | AKQ          |
| 2SB1198R    | AKR          |

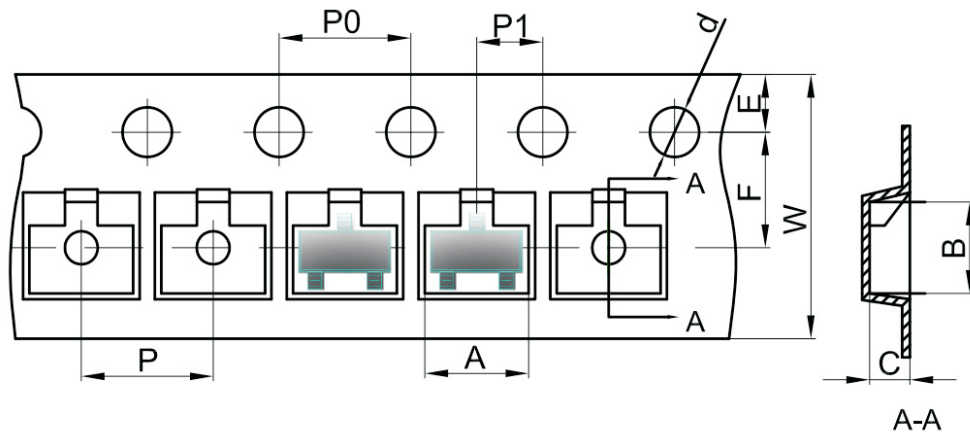


## SOT-23 Packing

1. The method of packaging and dimension are shown as below figure. (Dimension in mm)



### SOT-23 Embossed Carrier Tape



| Dimensions are in millimeter |      |      |      |       |      |      |      |      |      |      |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|
| Pkg type                     | A    | B    | C    | d     | E    | F    | P0   | P    | P1   | W    |
| SOT-23                       | 3.15 | 2.77 | 1.22 | Ø1.50 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |

### SOT-23 Tape Leader and Trailer

