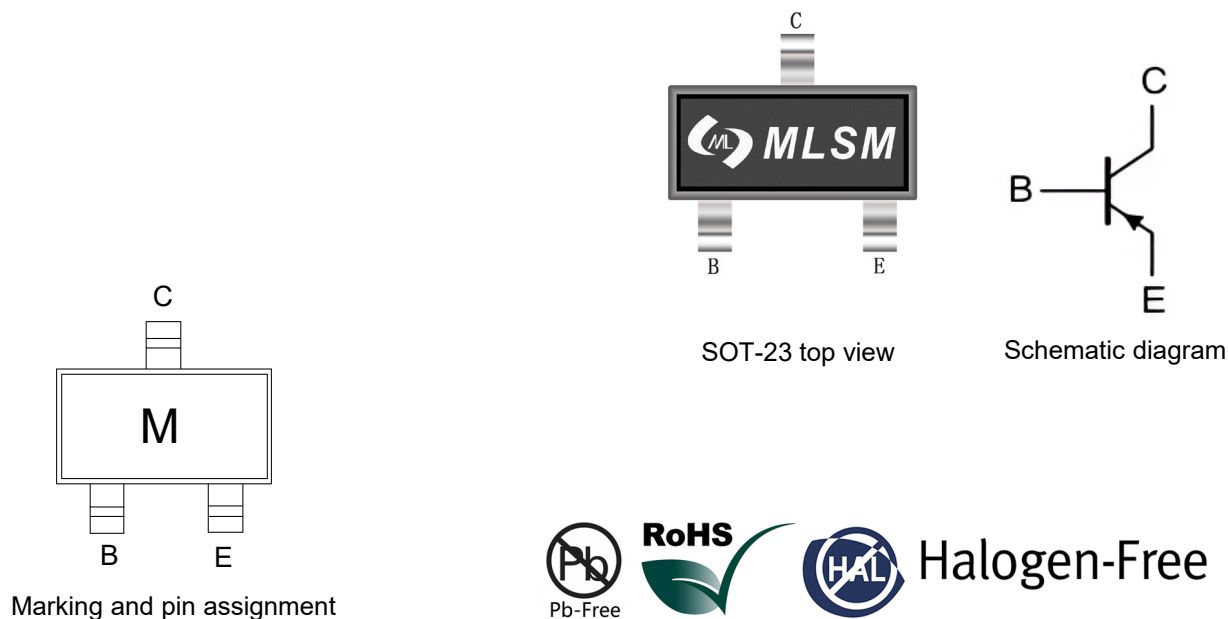


## Features

- High breakdown voltage



Halogen-Free

## Maximum Ratings (Ta=25°C unless otherwise noted)

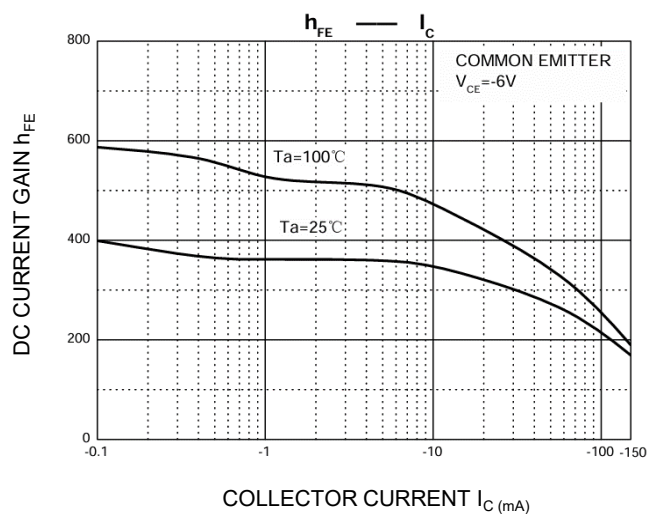
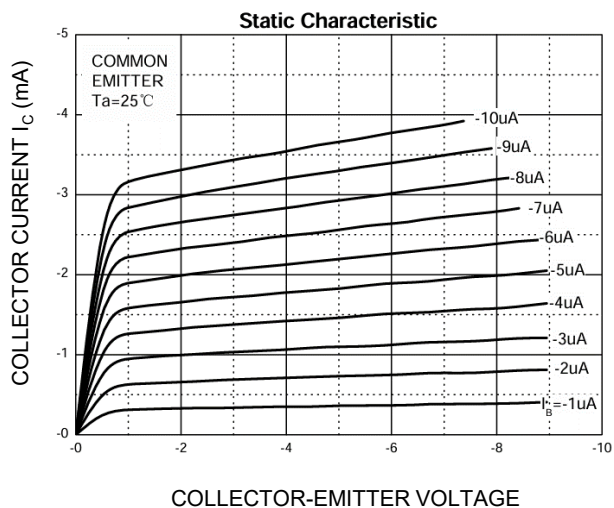
| Symbol         | Parameter                                        | Value    | Unit |
|----------------|--------------------------------------------------|----------|------|
| $V_{CBO}$      | Collector-Base Voltage                           | -55      | V    |
| $V_{CEO}$      | Collector-Emitter Voltage                        | -50      | V    |
| $V_{EBO}$      | Emitter-Base Voltage                             | -5       | V    |
| $I_C$          | Collector Current                                | -150     | mA   |
| $P_C$          | Collector Power Dissipation                      | 200      | mW   |
| $T_J, T_{stg}$ | Operation Junction and Storage Temperature Range | -55~+150 | °C   |

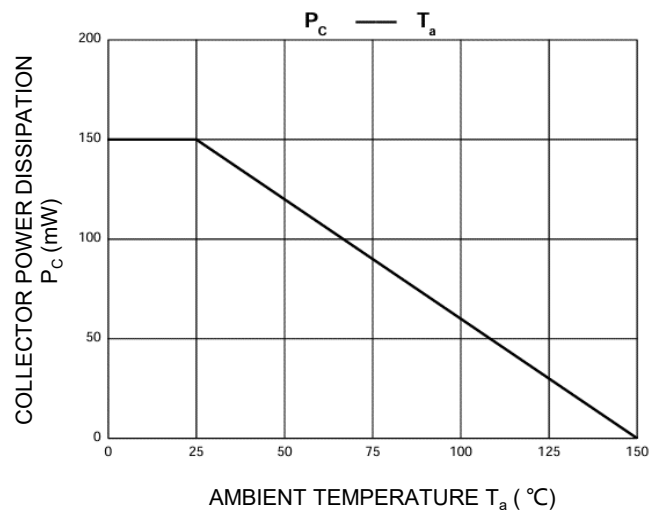
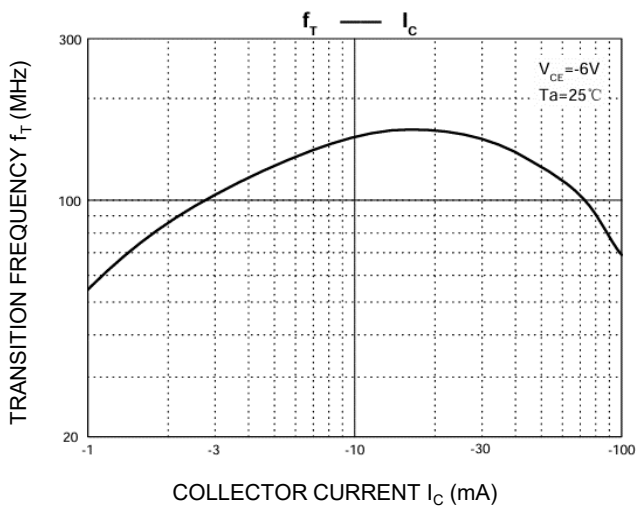
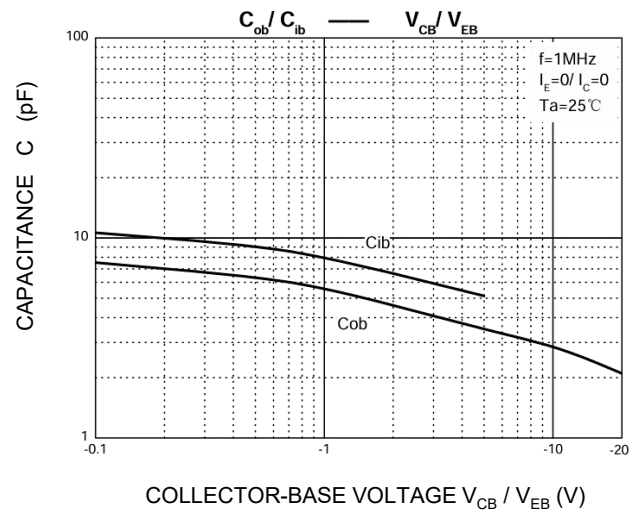
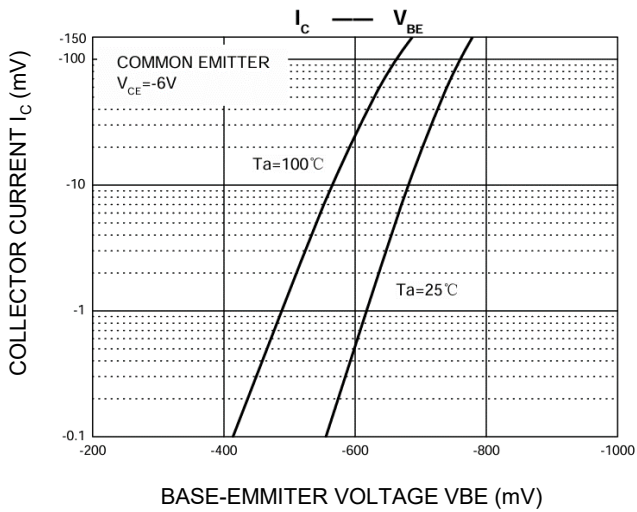
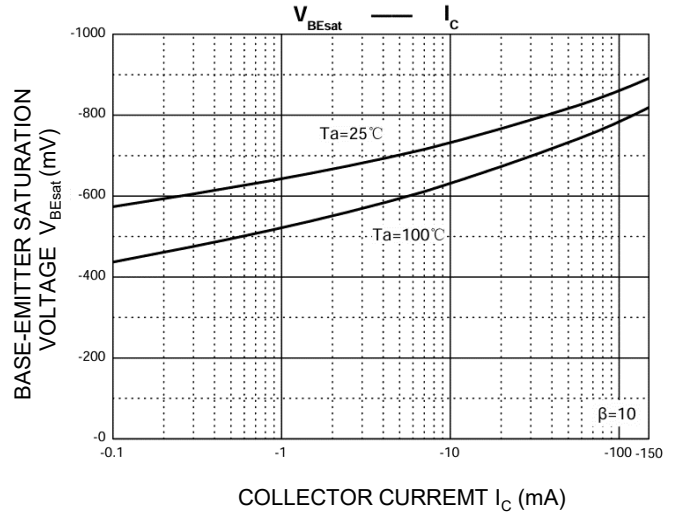
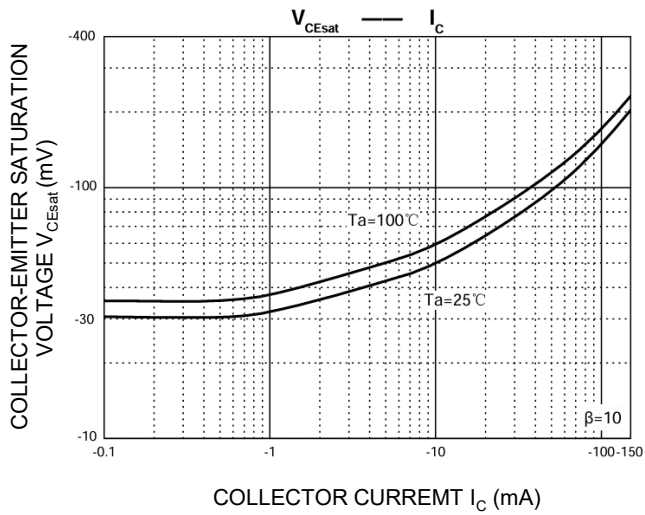
## Ordering Information (Example)

| Type    | Package | Marking | Minimum Package(pcs) | Inner Box Quantity(pcs) | Outer Carton Quantity(pcs) | Delivery Mode |
|---------|---------|---------|----------------------|-------------------------|----------------------------|---------------|
| 2SA1179 | SOT-23  | M       | 3,000                | 45,000                  | 180,000                    | 7"reel        |

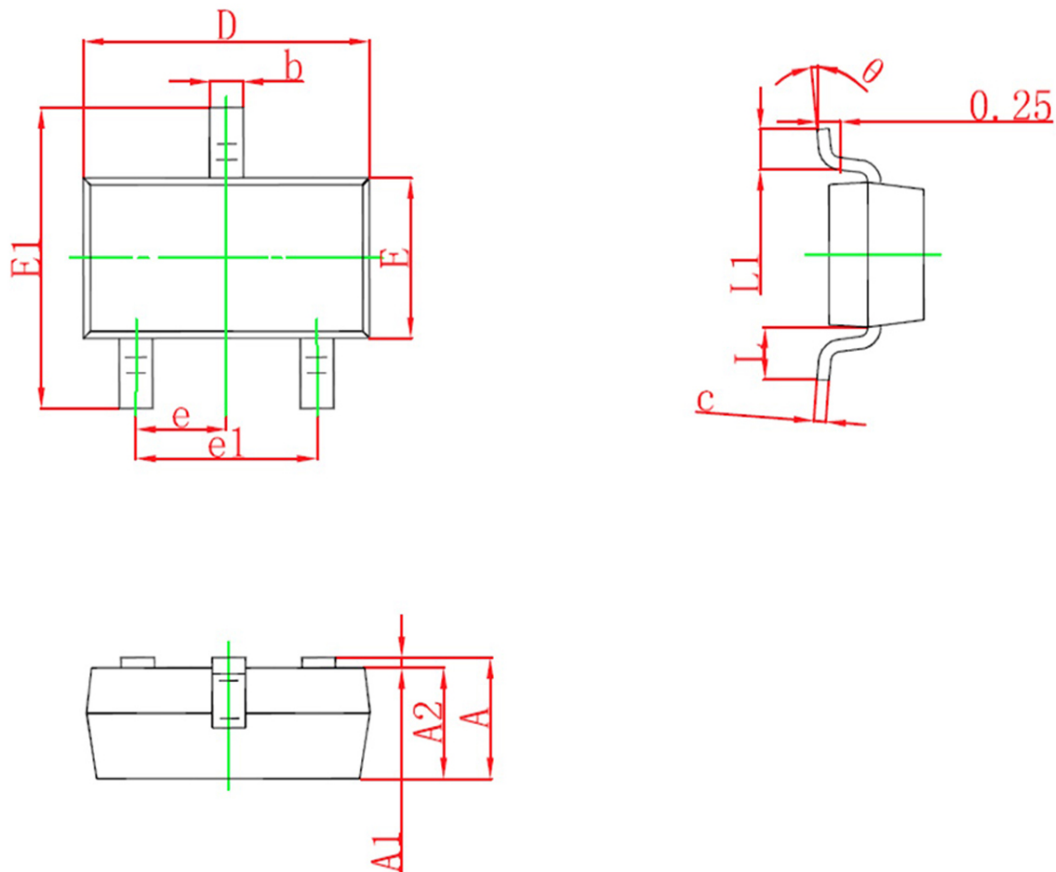
**Electrical Characteristics (Ta=25°C unless otherwise specified)**

| Symbol        | Parameter                            | Condition                         | Min | Typ | Max  | Unit    |
|---------------|--------------------------------------|-----------------------------------|-----|-----|------|---------|
| $V_{(BR)CBO}$ | Collector-base breakdown voltage     | $I_C = -10\mu A, I_E = 0$         | -55 | --  | --   | V       |
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage  | $I_C = -1mA, I_B = 0$             | -50 | --  | --   | V       |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage       | $I_E = -10\mu A, I_C = 0$         | -5  | --  | --   | V       |
| $I_{CBO}$     | Collector cut-off current            | $V_{CB} = -35V, I_E = 0$          | --  | --  | -0.1 | $\mu A$ |
| $I_{EBO}$     | Emitter cut-off current              | $V_{EB} = -4V, I_C = 0$           | --  | --  | -0.1 | $\mu A$ |
| $h_{FE}$      | DC current gain                      | $V_{CE} = -6V, I_C = -1mA$        | 200 | --  | 400  |         |
| $V_{CE(sat)}$ | Collector-emitter saturation voltage | $I_C = -50mA, I_B = -5mA$         | --  | --  | -0.5 | V       |
| $V_{BE(sat)}$ | Base-emitter saturation voltage      | $I_C = -50mA, I_B = -5mA$         | --  | --  | -1   | V       |
| $C_{ob}$      | Collector output capacitance         | $V_{CE} = -6V, I_E = 0, f = 1MHz$ | --  | 4   | --   | pF      |
| $f_T$         | Transition frequency                 | $V_{CE} = -6V, I_C = -10mA$       | --  | 180 | --   | MHz     |

**Typical Operating Characteristics**




**SOT-23 Package information**



| Symbol | Dimensions in Millimeters(mm) |       | Dimensions In Inches |       |
|--------|-------------------------------|-------|----------------------|-------|
|        | Min                           | Max   | Min                  | Max   |
| A      | 0.900                         | 1.150 | 0.035                | 0.045 |
| A1     | 0.000                         | 0.100 | 0.000                | 0.004 |
| A2     | 0.900                         | 1.050 | 0.035                | 0.041 |
| b      | 0.300                         | 0.500 | 0.012                | 0.020 |
| c      | 0.080                         | 0.150 | 0.003                | 0.006 |
| D      | 2.800                         | 3.000 | 0.110                | 0.118 |
| E1     | 2.250                         | 2.550 | 0.088                | 0.100 |
| E      | 1.200                         | 1.400 | 0.047                | 0.055 |
| e      | 0.950TYP                      |       | 0.037TYP             |       |
| e1     | 1.800                         | 2.000 | 0.071                | 0.079 |
| L      | 0.550 REF                     |       | 0.022 REF            |       |
| L1     | 0.300                         | 0.500 | 0.012                | 0.020 |
| θ      | 0°                            | 8°    | 0°                   | 8°    |