

## Features

- High DC current gain : $h_{FE}=200(\text{Typ})$  $V_{CE}=6\text{V}$ ,  $I_C=1\text{mA}$
- High voltage: $V_{CEO}=50\text{V}$



SOT-323

## Absolute Maximum Ratings( $T_A=25^\circ\text{C}$ )

| Symbol         | Parameter                                        | Value           | Unit                      |
|----------------|--------------------------------------------------|-----------------|---------------------------|
| $V_{CBO}$      | Collector-Base Voltage                           | 60              | V                         |
| $V_{CEO}$      | Collector-Emitter Voltage                        | 50              | V                         |
| $V_{EBO}$      | Emitter-Base Voltage                             | 5               | V                         |
| $I_C$          | Collector Current                                | 0.1             | A                         |
| $P_C$          | Collector Power Dissipation                      | 200             | mW                        |
| $T_J, T_{stg}$ | Operation Junction And Storage Temperature Range | $-55 \sim +150$ | $^\circ\text{C}/\text{W}$ |

## Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise specified)

| Symbol        | Parameter                            | Test conditions                        | Min | Typ | Max | Unit          |
|---------------|--------------------------------------|----------------------------------------|-----|-----|-----|---------------|
| $V_{(BR)CBO}$ | Collector-base breakdown voltage     | $I_C=100\mu\text{A}$ , $I_E=0$         | 60  |     |     | V             |
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage  | $I_C=1\text{mA}$ , $I_B=0$             | 50  |     |     | V             |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage       | $I_E=100\mu\text{A}$ , $I_C=0$         | 5   |     |     | V             |
| $I_{CBO}$     | Collector cut-off current            | $V_{CB}=60\text{V}$ , $I_E=0$          |     |     | 0.1 | $\mu\text{A}$ |
| $I_{EBO}$     | Emitter cut-off current              | $V_{EB}=5\text{V}$ , $I_C=0$           |     |     | 0.1 | $\mu\text{A}$ |
| $h_{FE}$      | DC current gain                      | $V_{CE}=6\text{V}$ , $I_C=1\text{mA}$  | 90  | 200 | 600 |               |
| $V_{CE(sat)}$ | Collector-emitter saturation voltage | $I_C=100\text{mA}$ , $I_B=10\text{mA}$ |     |     | 0.3 | V             |
| $V_{BE(sat)}$ | Collector-emitter saturation voltage | $I_C=100\text{mA}$ , $I_B=10\text{mA}$ |     |     | 1   | V             |
| $f_T$         | Transition frequency                 | $V_{CE}=6\text{V}$ , $I_C=10\text{mA}$ |     | 250 |     | MHz           |

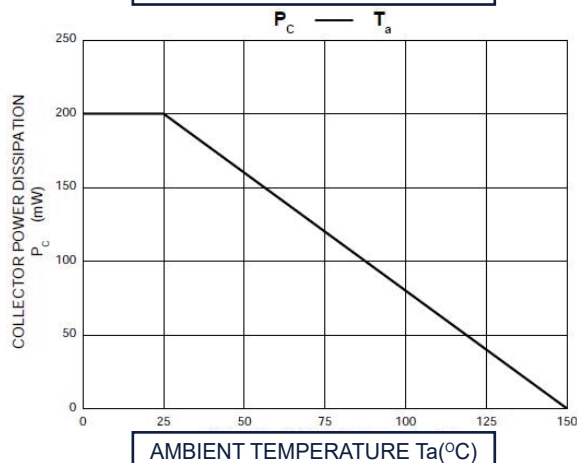
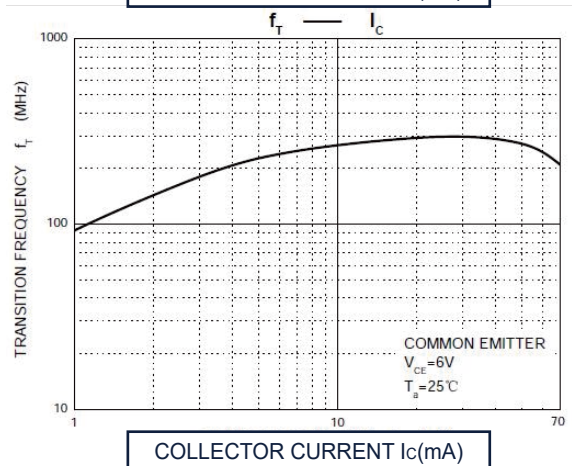
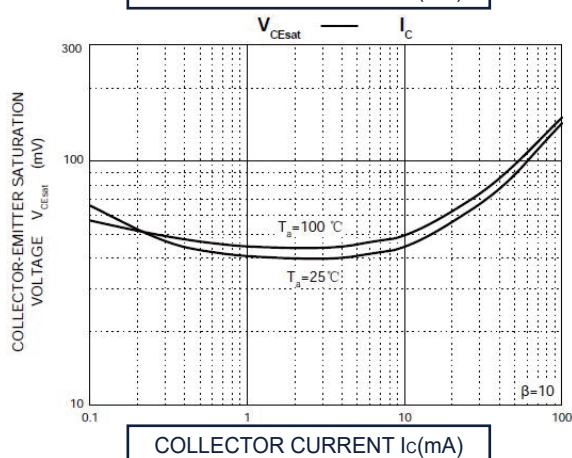
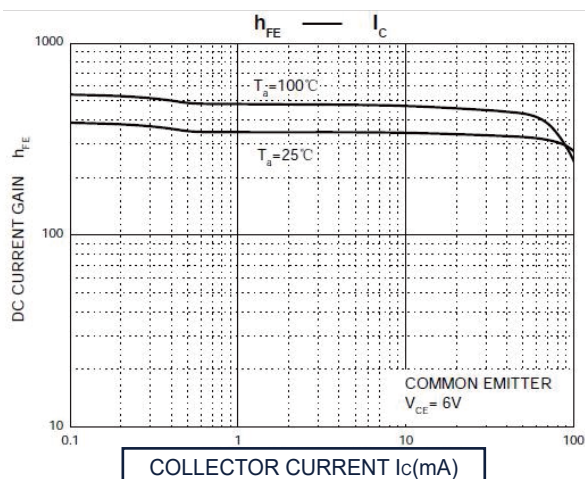
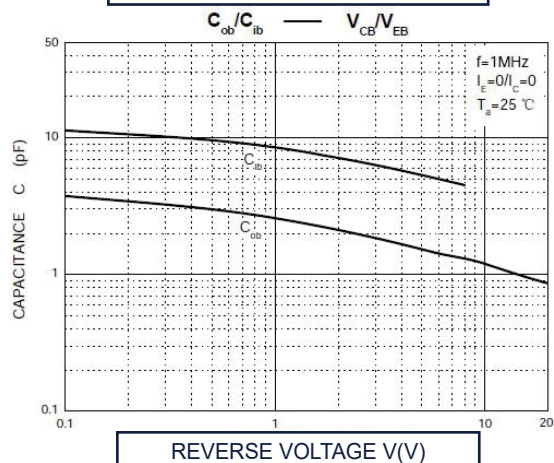
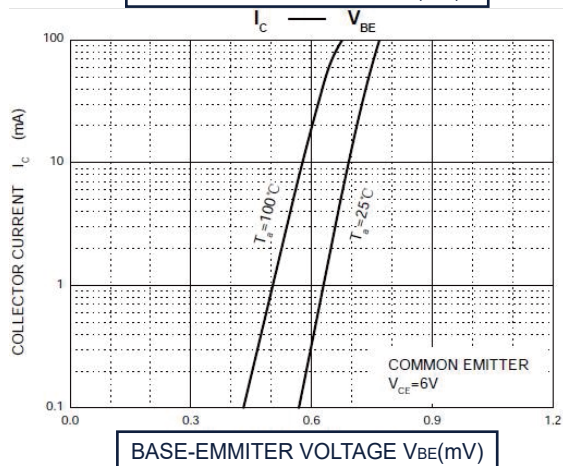
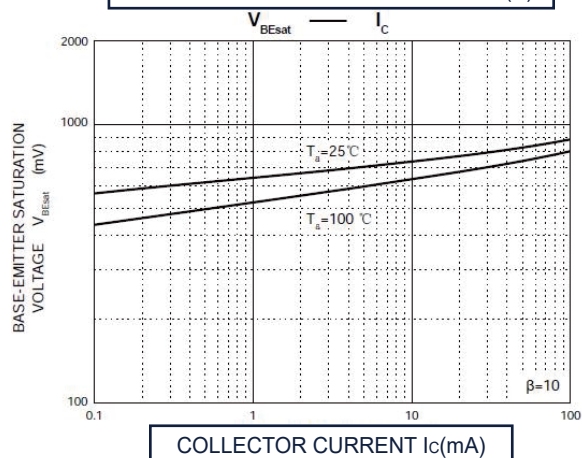
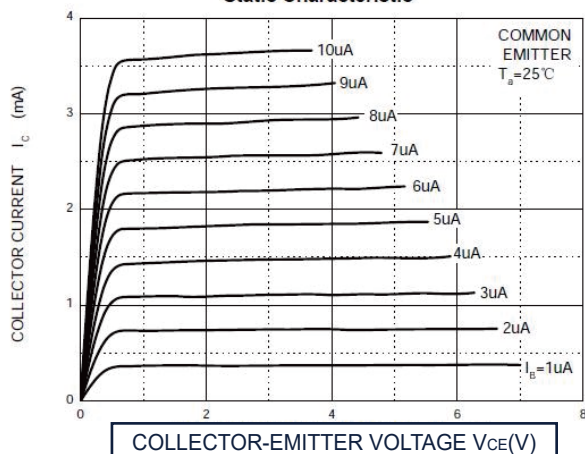
## Ordering information

| Product ID | Pack    | Naming rule                                                                                                                                                                                                                                                                                                              | Marking | $h_{FE}(1)$ | Qty(PCS) |
|------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|----------|
| 2SC1623W   | SOT-323 | <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">2SC1623W</div> <div style="text-align: right;">             封装标识<br/>Packaging label           </div> </div> <div style="margin-top: 5px;">             产品名称<br/>product name           </div> | L6      | 300-400     | 3000     |



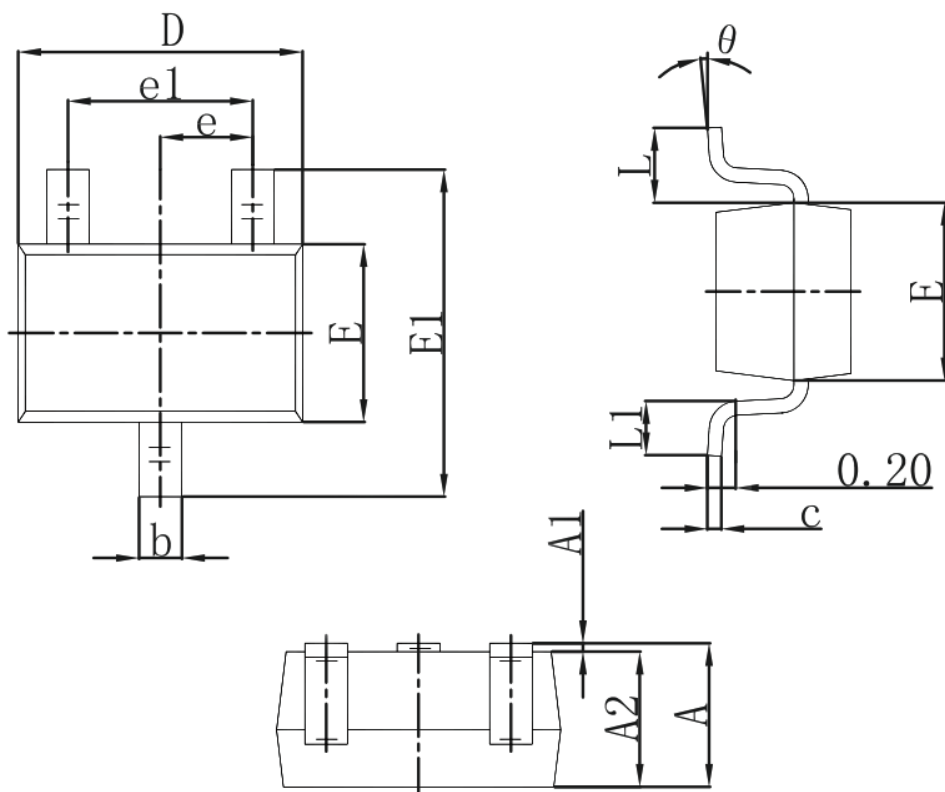
## Typical Characteristics

Static Characteristic





## SOT-323 Package Outline Dimensions



| Symbol   | Dimensions in Millimeters |       | Dimensions In Inches |       |
|----------|---------------------------|-------|----------------------|-------|
|          | Min                       | Max   | Min                  | Max   |
| A        | 0.900                     | 1.100 | 0.035                | 0.043 |
| A1       | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2       | 0.900                     | 1.000 | 0.035                | 0.039 |
| b        | 0.200                     | 0.400 | 0.008                | 0.016 |
| c        | 0.080                     | 0.150 | 0.003                | 0.006 |
| D        | 2.000                     | 2.200 | 0.079                | 0.087 |
| E        | 1.150                     | 1.350 | 0.045                | 0.053 |
| E1       | 1.350                     | 2.450 | 0.085                | 0.096 |
| e        | 0.650 TYP                 |       | 0.026 TYP            |       |
| e1       | 1.200                     | 1.400 | 0.047                | 0.055 |
| L        | 0.525 REF                 |       | 0.021 REF            |       |
| L1       | 0.260                     | 0.460 | 0.010                | 0.018 |
| $\theta$ | 0°                        | 8°    | 0°                   | 8°    |