

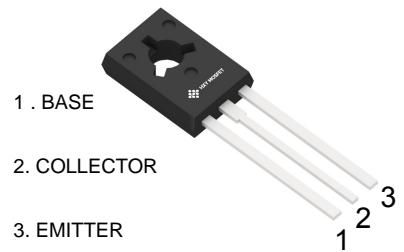


## Features

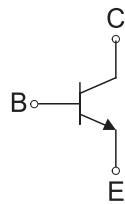
- Power Dissipation

## Package Marking and Ordering Information

| Product ID | Pack   | Packing Method | Qty(PCS) |
|------------|--------|----------------|----------|
| 2SD882     | TO-126 | Bulk           | 200      |



TO-126



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

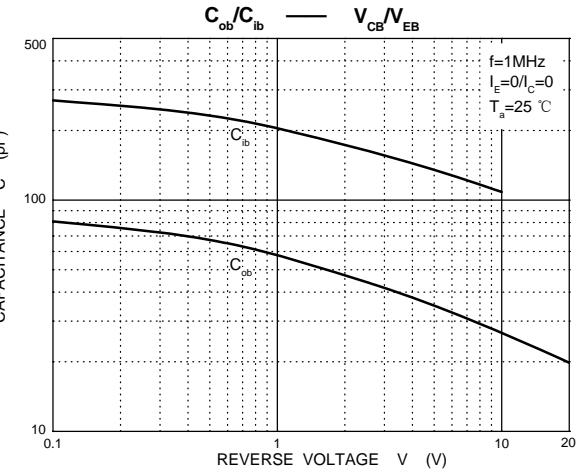
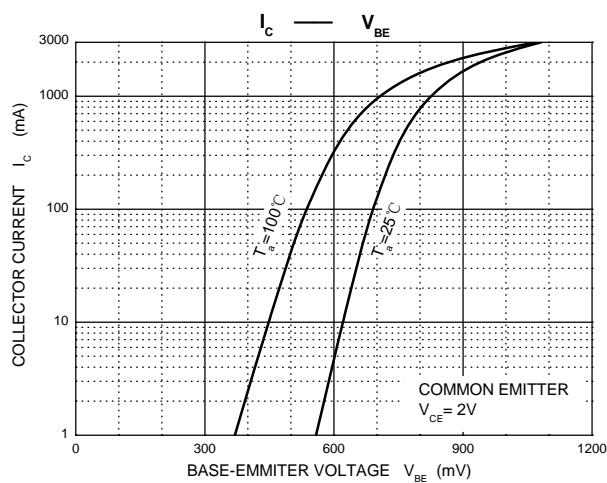
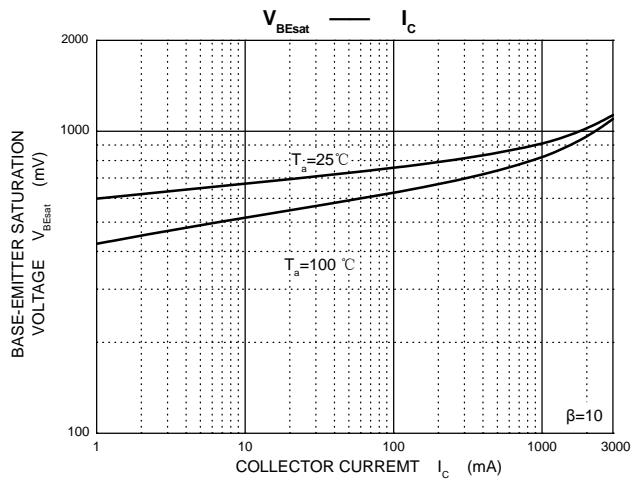
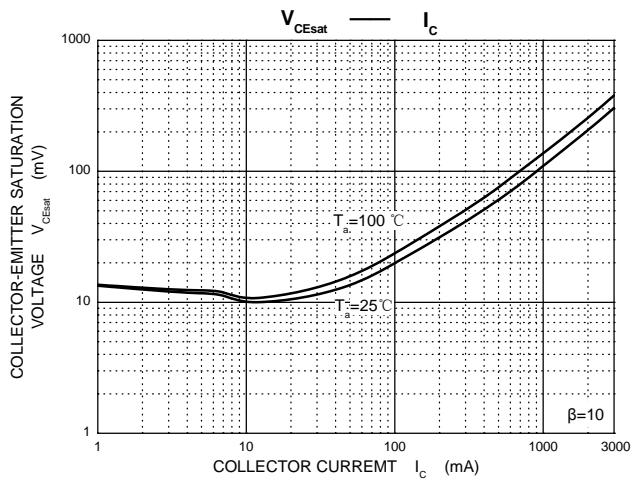
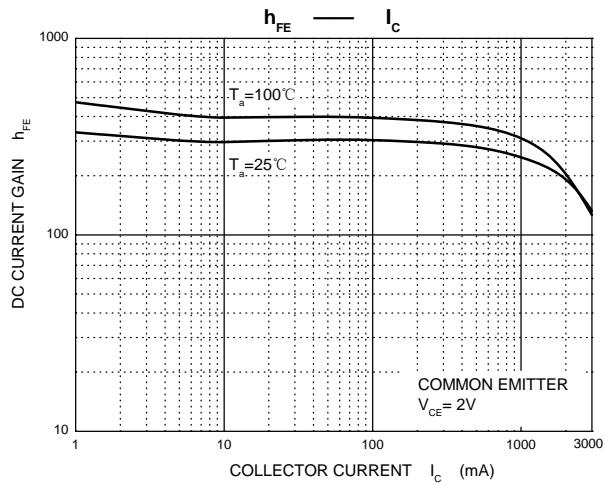
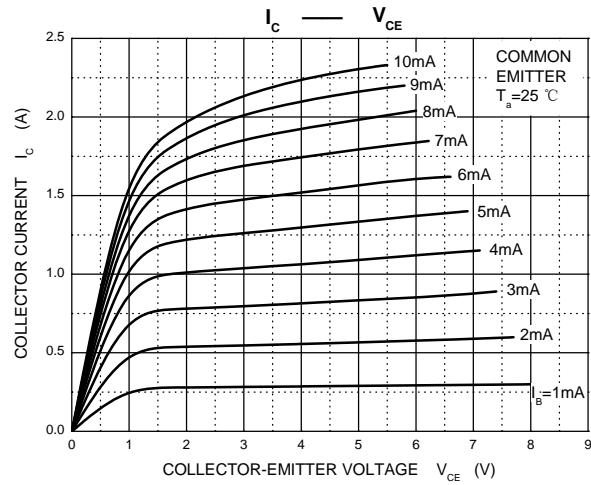
| Symbol         | Parameter  | Value    | Unit |
|----------------|--|----------|------|
| $V_{CBO}$      | Collector-Base Voltage                           | 60       | V    |
| $V_{CEO}$      | Collector-Emitter Voltage                        | 30       | V    |
| $V_{EBO}$      | Emitter-Base Voltage                             | 6        | V    |
| $I_c$          | Collector Current -Continuous                    | 3        | A    |
| $P_c$          | Collector Dissipation                            | 1.25     | W    |
| $T_J, T_{stg}$ | Operation Junction and Storage Temperature Range | -55~+150 | °C   |

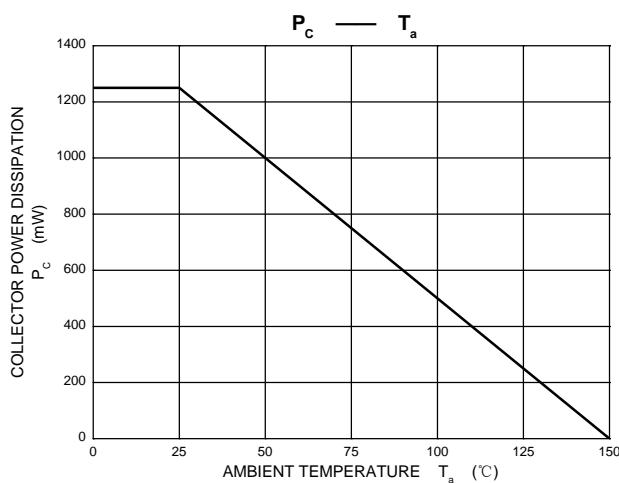
## Electrical Characteristics(Ta=25°C unless otherwise specified)

| Parameter                            | symbol               | Test conditions  | Min | Max | Unit |
|--------------------------------------|----------------------|--|-----|-----|------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$        | $I_c = 1\text{mA}, I_E = 0$                              | 60  |     | V    |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$        | $I_c = 1\text{mA}, I_B = 0$                              | 30  |     | V    |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$        | $I_E = 1\text{mA}, I_C = 0$                              | 6   |     | V    |
| Collector cut-off current            | $I_{CBO}$            | $V_{CB} = 60\text{V}, I_E = 0$                           |     | 1   | uA   |
| Collector cut-off current            | $I_{CEO}$            | $V_{CE} = 30\text{V}, I_B = 0$                           |     | 1   | uA   |
| Emitter cut-off current              | $I_{EBO}$            | $V_{EB} = 6\text{V}, I_C = 0$                            |     | 1   | uA   |
| DC current gain                      | $h_{FE}$             | $V_{CE} = 2\text{V}, I_c = 1\text{A}$                    | 200 | 300 |      |
| Collector-emitter saturation voltage | $V_{CE(\text{sat})}$ | $I_c = 2\text{A}, I_B = 0.2\text{A}$                     |     | 0.5 |      |
| Transition frequency                 | $f_T$                | $V_{CE} = 5\text{V}, I_c = 0.1\text{A}, f = 1\text{MHz}$ | 5   |     | MHz  |

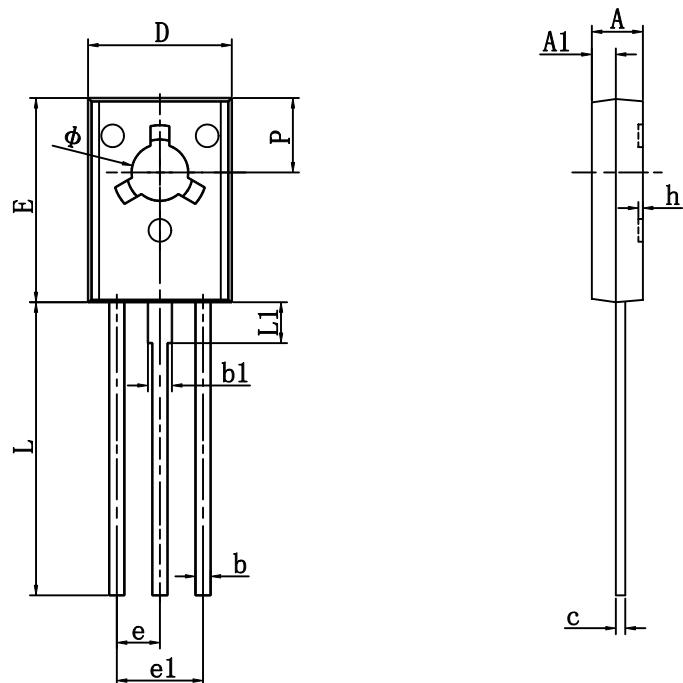


## Typical Characteristics





### TO-126 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |        | Dimensions In Inches |       |
|--------|---------------------------|--------|----------------------|-------|
|        | Min                       | Max    | Min                  | Max   |
| A      | 2.500                     | 2.900  | 0.098                | 0.114 |
| A1     | 1.100                     | 1.500  | 0.043                | 0.059 |
| b      | 0.660                     | 0.860  | 0.026                | 0.034 |
| b1     | 1.170                     | 1.370  | 0.046                | 0.054 |
| c      | 0.450                     | 0.600  | 0.018                | 0.024 |
| D      | 7.400                     | 7.800  | 0.291                | 0.307 |
| E      | 10.600                    | 11.000 | 0.417                | 0.433 |
| e      | 2.290 TYP                 |        | 0.090 TYP            |       |
| e1     | 4.480                     | 4.680  | 0.176                | 0.184 |
| h      | 0.000                     | 0.300  | 0.000                | 0.012 |
| L      | 15.300                    | 15.700 | 0.602                | 0.618 |
| L1     | 2.100                     | 2.300  | 0.083                | 0.091 |
| P      | 3.900                     | 4.100  | 0.154                | 0.161 |
| $\Phi$ | 3.000                     | 3.200  | 0.118                | 0.126 |



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