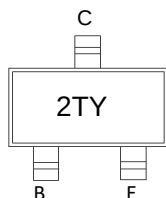
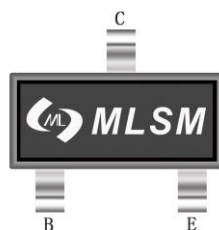


## Features

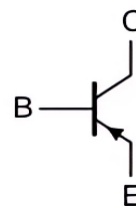
- Complimentary to S8050
- Collector current:  $I_C=0.5A$



Marking and pin assignment



SOT-23 top view



Schematic diagram



Pb-Free



Halogen-Free

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

| Symbol         | Parameter                               | Value     | Unit |
|----------------|-----------------------------------------|-----------|------|
| $V_{CBO}$      | Collector-Base Voltage                  | -40       | V    |
| $V_{CEO}$      | Collector-Emitter Voltage               | -25       | V    |
| $V_{EBO}$      | Emitter-Base Voltage                    | -5        | V    |
| $I_C$          | Collector Current -Continuous           | -0.5      | A    |
| $P_C$          | Collector Power Dissipation             | 0.3       | W    |
| $T_J, T_{STG}$ | Operating and Storage Temperature Range | -55~ +150 | °C   |

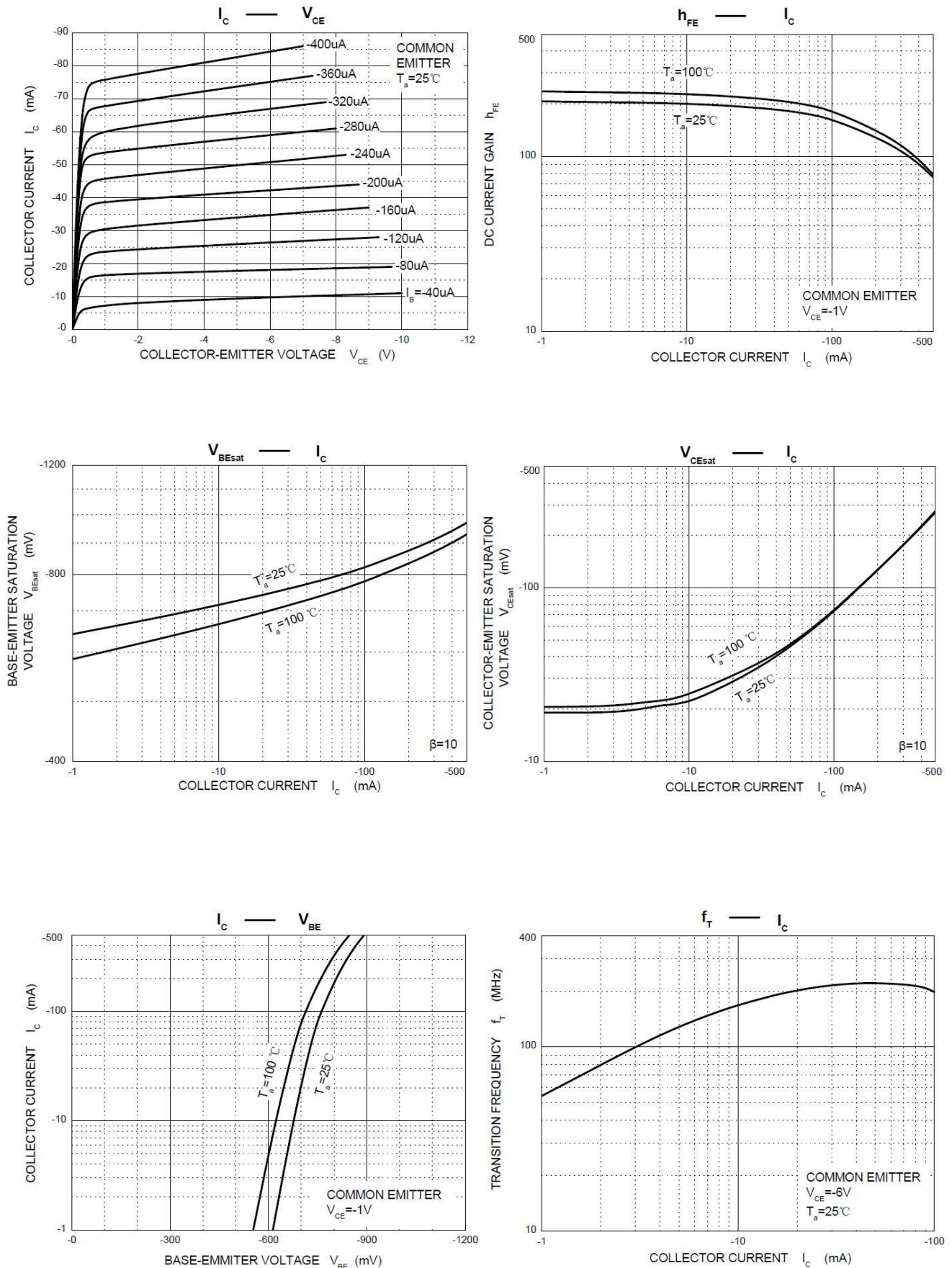
## Electrical Characteristics (Ta=25°C unless otherwise specified)

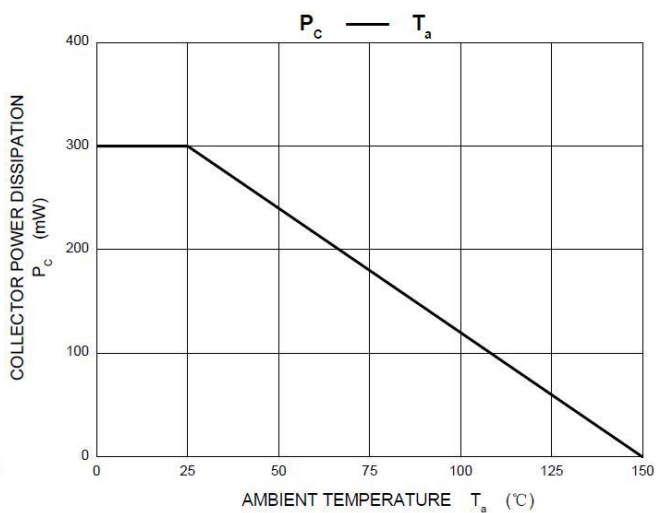
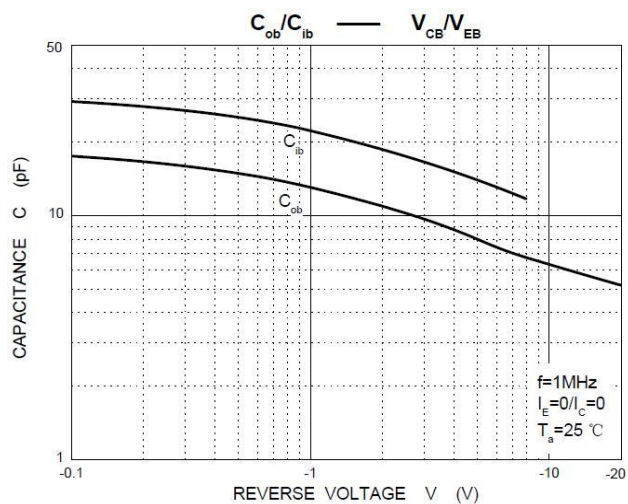
| Symbol        | Parameter                            | Test conditions                  | Min | Typ | Max  | Unit    |
|---------------|--------------------------------------|----------------------------------|-----|-----|------|---------|
| $V_{(BR)CBO}$ | Collector-base breakdown voltage     | $I_C=-100\mu A, I_E=0$           | -40 | --  | --   | V       |
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage  | $I_C=-1mA, I_B=0$                | -25 | --  | --   | V       |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage       | $I_E=-100\mu A, I_C=0$           | -6  | --  | --   | V       |
| $I_{CBO}$     | Collector cut-off current            | $V_{CB}=-40V, I_E=0$             | --  | --  | -0.1 | $\mu A$ |
| $I_{CEO}$     | Collector cut-off current            | $V_{CE}=-20V, I_B=0$             | --  | --  | -0.1 | $\mu A$ |
| $I_{EBO}$     | Emitter cut-off current              | $V_{CE}=3V, I_C=0$               | --  | --  | -0.1 | $\mu A$ |
| $h_{FE1}$     | DC current gain                      | $V_{CE}=-1V, I_C=-50mA$          | 120 | --  | 400  |         |
| $h_{FE2}$     |                                      | $V_{CE}=-1V, I_C=-500mA$         | 50  | --  | --   |         |
| $V_{CE(sat)}$ | Collector-emitter saturation voltage | $I_C=-500mA, I_B=-50mA$          | --  | --  | -0.6 | V       |
| $V_{BE(sat)}$ | Base-emitter saturation voltage      | $I_C=-500mA, I_B=-50mA$          | --  | --  | -1.2 | V       |
| $f_T$         | Transition frequency                 | $V_{CE}=-6V, I_C=-20mA, f=30MHz$ | 150 | --  | --   | MHz     |

## Classification Of $h_{FE(1)}$

| Rank    | L       | H       | J       |
|---------|---------|---------|---------|
| Range   | 120-200 | 200-350 | 300-400 |
| Marking | 2TY     |         |         |

Typical Operating Characteristics

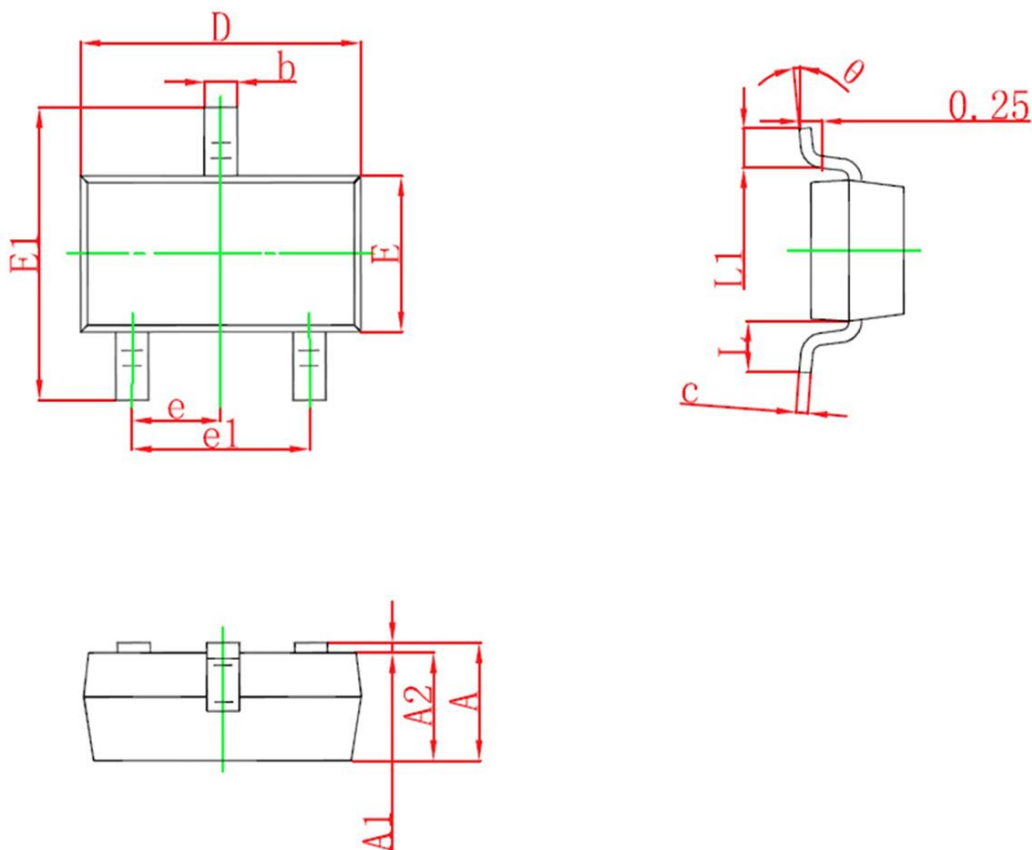




### Ordering Information (Example)

| Type  | Package | Marking | Minimum Package(pcs) | Inner Box Quantity(pcs) | Outer Carton Quantity(pcs) | Delivery Mode |
|-------|---------|---------|----------------------|-------------------------|----------------------------|---------------|
| S8550 | SOT-23  | 2TY     | 3,000                | 45,000                  | 180,000                    | 7"reel        |

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°    |