

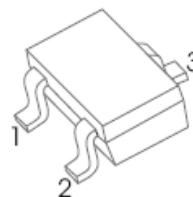
## TRANSISTOR (PNP)

SOT - 323

### FEATURES

Complimentary to SS8050W

1. BASE
2. EMITTER
3. COLLECTOR



MARKING: Y2

### MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

| Symbol    | Parameter                     | Value   | Units            |
|-----------|-------------------------------|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage        | -40     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage     | -25     | V                |
| $V_{EBO}$ | Emitter-Base Voltage          | -5      | V                |
| $I_C$     | Collector Current -Continuous | -1.5    | A                |
| $P_C$     | Collector Power Dissipation   | 0.2     | W                |
| $T_j$     | Junction Temperature          | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature           | -55-150 | $^\circ\text{C}$ |

### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^\circ\text{C}$ unless otherwise specified)

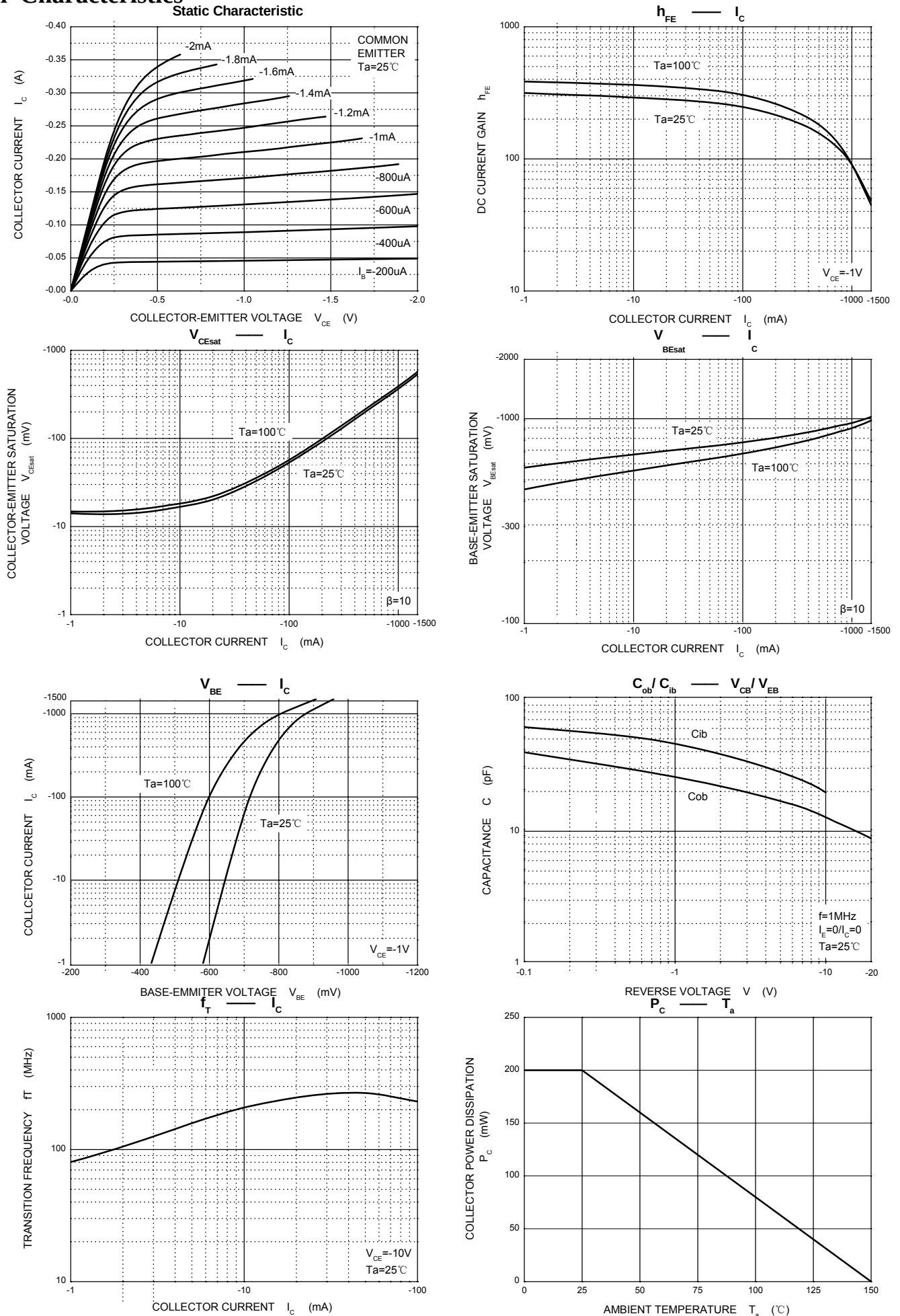
| Parameter                            | Symbol        | Test conditions                                               | MIN | MAX   | UNIT          |
|--------------------------------------|---------------|---------------------------------------------------------------|-----|-------|---------------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=-100\mu\text{A}$ , $I_E=0$                               | -40 |       | V             |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=-0.1\text{mA}$ , $I_B=0$                                 | -25 |       | V             |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=-100\mu\text{A}$ , $I_C=0$                               | -5  |       | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=-40\text{V}$ , $I_E=0$                                |     | -0.1  | $\mu\text{A}$ |
| Collector cut-off current            | $I_{CEO}$     | $V_{CE}=-20\text{V}$ , $I_B=0$                                |     | -0.1  | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=-5\text{V}$ , $I_C=0$                                 |     | -0.1  | $\mu\text{A}$ |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE}=-1\text{V}$ , $I_C=-100\text{mA}$                     | 120 | 400   |               |
|                                      | $h_{FE(2)}$   | $V_{CE}=-1\text{V}$ , $I_C=-800\text{mA}$                     | 40  |       |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=-800\text{mA}$ , $I_B=-80\text{mA}$                      |     | -0.5  | V             |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C=-800\text{mA}$ , $I_B=-80\text{mA}$                      |     | -1.2  | V             |
| Base-emitter on voltage              | $V_{BE(on)}$  | $I_C=-1\text{V}$ , $V_{CE}=-10\text{mA}$                      |     | -1    | V             |
| Base-emitter positive favor voltage  | $V_{BEF}$     | $I_B=-1\text{A}$                                              |     | -1.55 | V             |
| Transition frequency                 | $f_T$         | $V_{CE}=-10\text{V}$ , $I_C=-50\text{mA}$<br>$f=30\text{MHz}$ | 100 |       | MHz           |
| output capacitance                   | $C_{ob}$      | $(V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz})$                  |     | 20    | pF            |

### CLASSIFICATION OF $h_{FE(1)}$

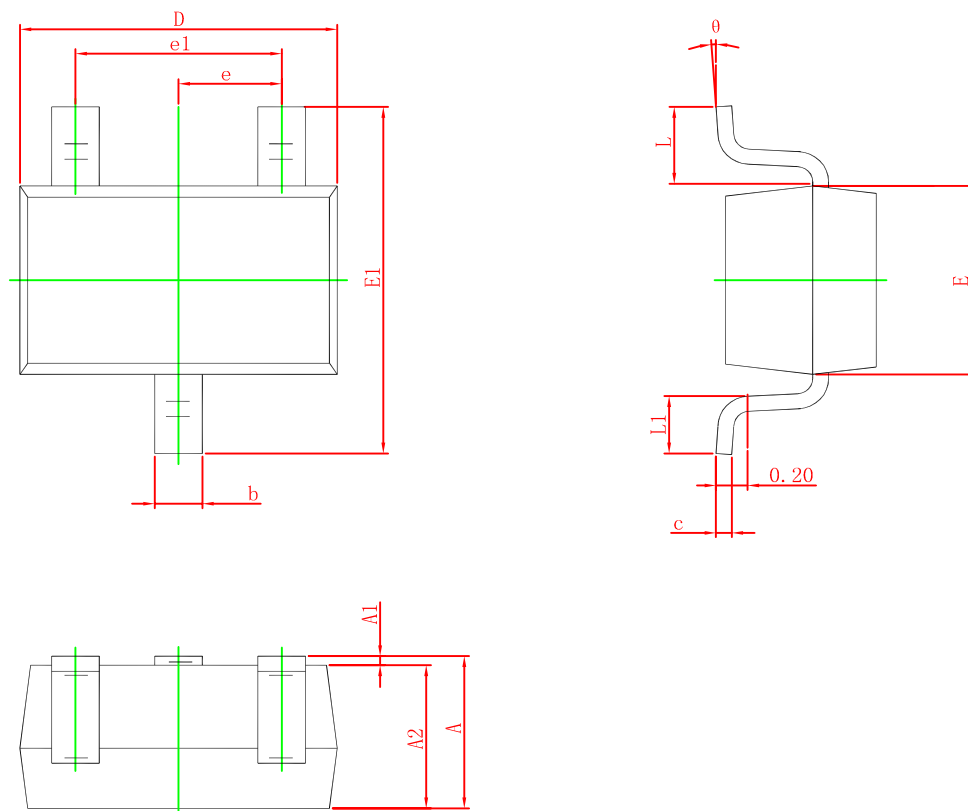
| RANK  | L         | H         | J         |
|-------|-----------|-----------|-----------|
| RANGE | 120 - 200 | 200 - 350 | 300 - 400 |



## Typical Characteristics



## 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     | 2.150                     | 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 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |