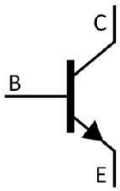


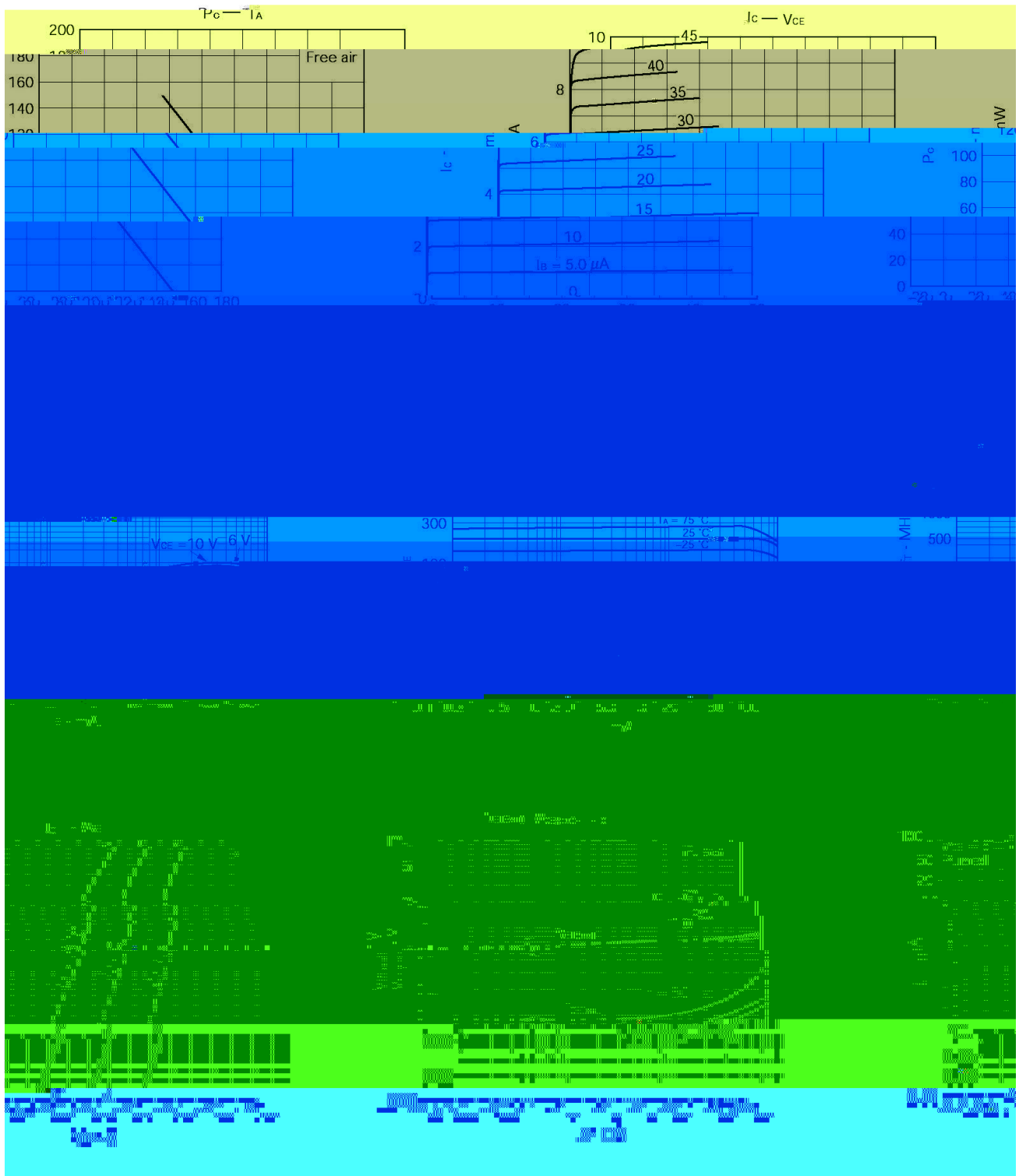
Silicon NPN transistor in a SOT-323 Plastic Package.

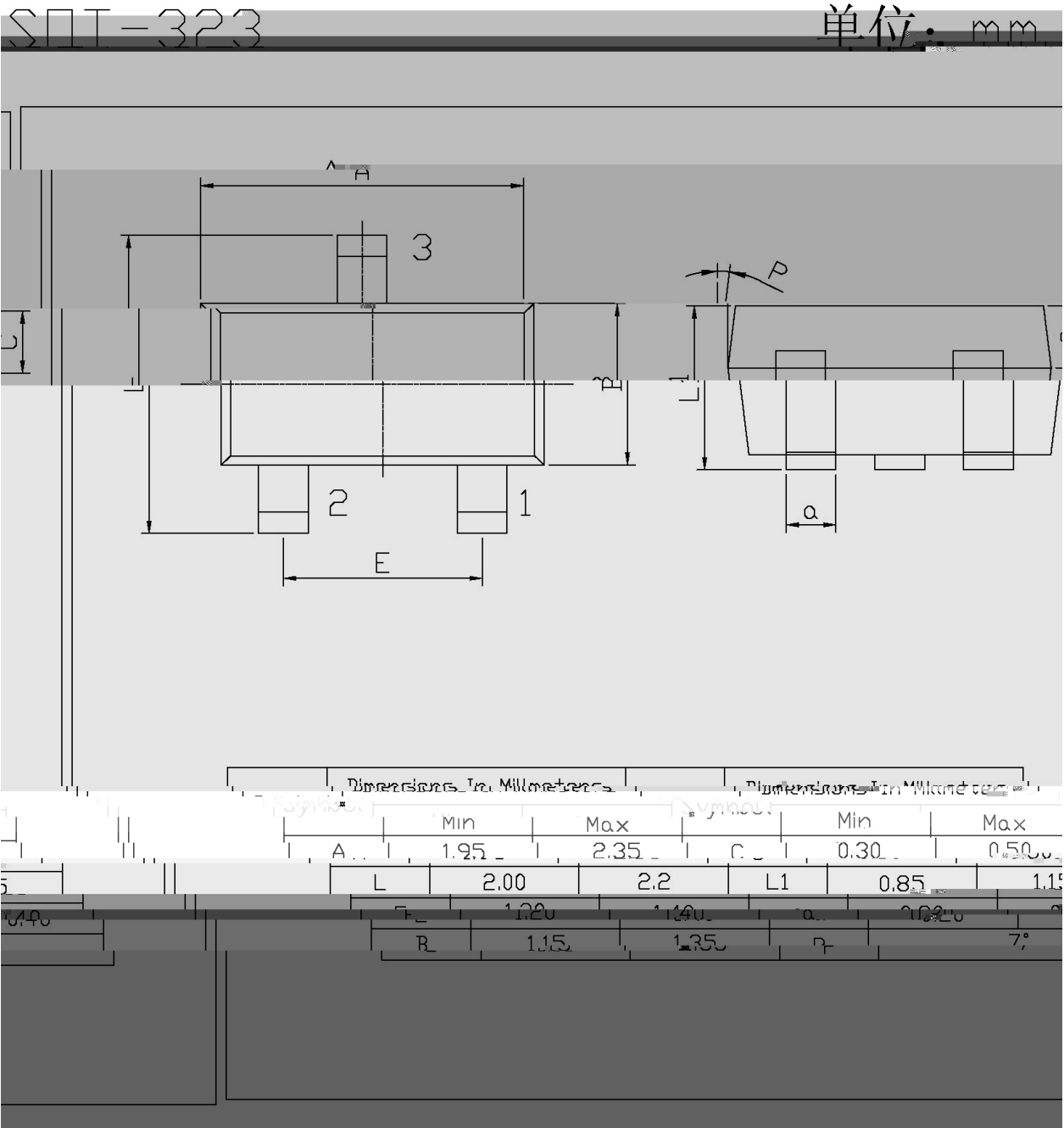
High  $h_{FE}$  and  $V_{CEO}$

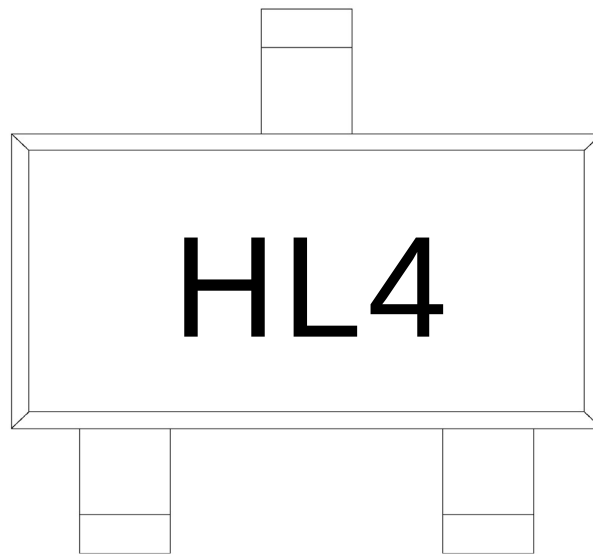


| Parameter                      | Symbol    | Rating  | Unit |
|--------------------------------|-----------|---------|------|
| Collector to Base Voltage      | $V_{CBO}$ | 60      | V    |
| Collector to Emitter Voltage   | $V_{CEO}$ | 50      | V    |
| Emitter to Base Voltage        | $V_{EBO}$ | 5.0     | V    |
| Collector Current - Continuous | $I_C$     | 100     | mA   |
| Collector Power Dissipation    | $P_C$     | 150     | mW   |
| Junction Temperature           | $T_j$     | 150     |      |
| Storage Temperature Range      | $T_{stg}$ | -55 150 |      |

| Parameter                               | Symbol        | Test Conditions                  | Min  | Typ  | Max  | Unit    |
|-----------------------------------------|---------------|----------------------------------|------|------|------|---------|
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=60V$ $I_E=0$             |      |      | 0.1  | $\mu A$ |
| Emitter Base Cut-Off Current            | $I_{EBO}$     | $V_{EB}=5.0V$ $I_C=0$            |      |      | 0.1  | $\mu A$ |
| DC Current Gain                         | $h_{FE}$      | $V_{CE}=6.0V$ $I_C=1.0mA$        | 90   | 200  | 600  |         |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=100mA$ $I_B=10mA$           |      | 0.15 | 0.3  | V       |
| Base to Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C=100mA$ $I_B=10mA$           |      | 0.86 | 1.0  | V       |
| Base to Emitter Voltage                 | $V_{BE}$      | $V_{CE}=6.0V$ $I_C=1.0mA$        | 0.55 | 0.62 | 0.65 | V       |
| Transition Frequency                    | $f_T$         | $V_{CE}=6.0V$ $I_C=10mA$         |      | 250  |      | MHz     |
| Collector Output Capacitance            | $C_{ob}$      | $V_{CB}=6.0V$ $I_E=0$ $f=1.0MHz$ |      | 3.0  |      | pF      |







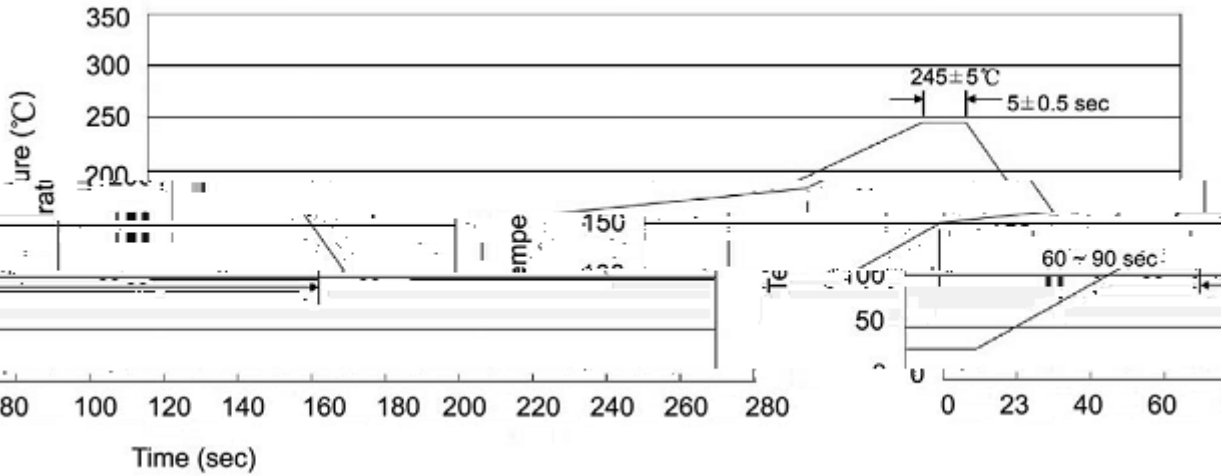
H

L4

Note:

H: Company Code.

L4: Product Type.



Note:

- 1

25 150

60 90sec;
- 2

245 5

5 0.5sec;
- 3

2 10 /sec.
- 1.Preheating:25~150

, Time:60~90sec.
- 2.Peak Temp.:245 5

, Duration:5 0.5sec.
3. Cooling Speed: 2~10

/sec.

260 5

10 1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL

| Package Type | Units      |                 |                 |                       |                 | Dimension (unit mm <sup>3</sup> ) |             |             |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|-------------|-------------|
|              | Units/Reel | Reels/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Reel                              | Inner Box   | Outer Box   |
| SOT-323      | 3,000      | 10              | 30,000          | 6                     | 180,000         | 7 ×8                              | 180×120×180 | 390×385×205 |