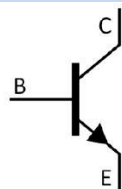


Silicon NPN transistor in a SOT-23 Plastic Package.

High Collector-Emitter Voltage.

High voltage application.



PIN1    Base            PIN 2    Emitter            PIN 3    Collector

|                       |        |
|-----------------------|--------|
| h <sub>FE</sub> Range | 30~200 |
| Marking               | 3DH    |

| Parameter                    | Symbol    | Rating  | Unit |
|------------------------------|-----------|---------|------|
| Collector to Base Voltage    | $V_{CBO}$ | 350     | V    |
| Collector to Emitter Voltage | $V_{CEO}$ | 350     | V    |
| Emitter to Base Voltage      | $V_{EBO}$ | 6.0     | V    |
| Collector Current            | $I_C$     | 500     | mA   |
| Collector Power Dissipation  | $P_C$     | 300     | mW   |
| Junction Temperature         | $T_j$     | 150     |      |
| Storage Temperature Range    | $T_{stg}$ | -55~150 |      |

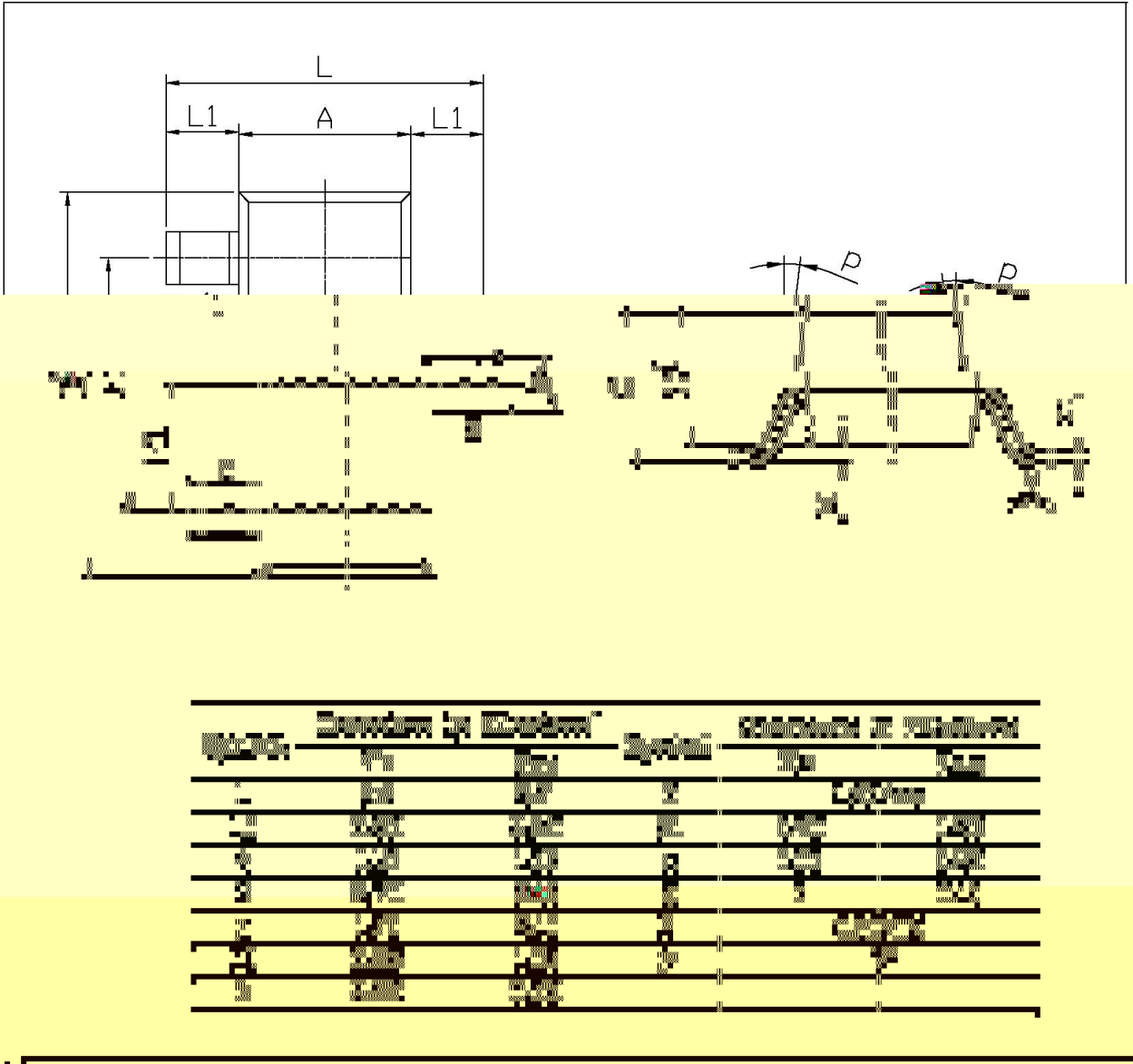
| Parameter                              | Symbol        | Test Conditions                   | Min | Typ | Max  | Unit    |
|----------------------------------------|---------------|-----------------------------------|-----|-----|------|---------|
| Collector to Base Breakdown Voltage    | $V_{CBO}$     | $I_C=100\mu A$ $I_E=0$            | 350 |     |      | V       |
| Collector to Emitter Breakdown Voltage | $*V_{CEO}$    | $I_C=1.0mA$ $I_B=0$               | 350 |     |      | V       |
| Emitter to Base Breakdown Voltage      | $V_{EBO}$     | $I_E=10\mu A$ $I_C=0$             | 6.0 |     |      | V       |
| Collector Cut-Off Current              | $I_{CBO}$     | $V_{CB}=250V$ $I_E=0$             |     |     | 0.05 | $\mu A$ |
| Emitter Cut-Off Current                | $I_{EBO}$     | $V_{EB}=4.0V$ $I_C=0$             |     |     | 0.05 | $\mu A$ |
| DC Current Gain                        | $h_{FE(1)}$   | $V_{CE}=10V$ $I_C=30mA$           | 30  |     | 200  |         |
|                                        | $*h_{FE(2)}$  | $V_{CE}=10V$ $I_C=100mA$          | 15  |     |      |         |
|                                        | $h_{FE(3)}$   | $V_{CE}=10V$ $I_C=1.0mA$          | 20  |     |      |         |
| Collector-Emitter Saturation Voltage   | $V_{CE(sat)}$ | $I_C=10mA$ $I_B=1.0mA$            |     |     | 0.3  | V       |
|                                        | $V_{CE(sat)}$ | $I_C=50mA$ $I_B=5.0mA$            |     |     | 1.0  | V       |
| Base-Emitter Saturation Voltage        | $V_{BE(sat)}$ | $I_C=10mA$ $I_B=1.0mA$            |     |     | 0.75 | V       |
|                                        | $V_{BE(sat)}$ | $I_C=30mA$ $I_B=3.0mA$            |     |     | 0.9  | V       |
| Base-Emitter On Voltage                | $*V_{BE(ON)}$ | $V_{CE}=10V$ $I_C=100mA$          |     |     | 2.0  | V       |
| Transition Frequency                   | $f_T$         | $V_{CE}=20V$ $f=20MHz$ $I_C=10mA$ | 40  |     | 200  | MHz     |
| Collector Output Capacitance           | $C_{ob}$      | $V_{CB}=20V$ $f=1MHz$ $I_E=0$     |     |     | 6.0  | pF      |

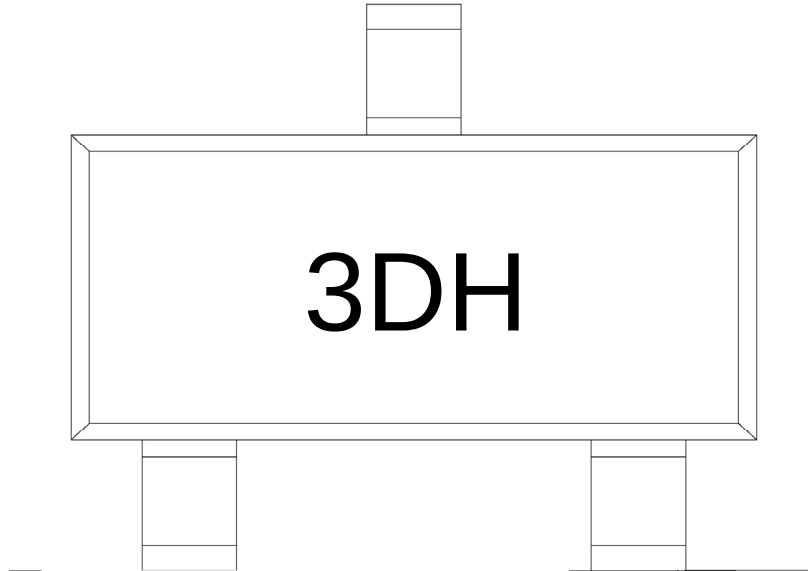
\*pulse test: pulse width $\leq 300\mu S$ , duty cycle $\leq 2.0\%$ .



SOT-23

单位; mm



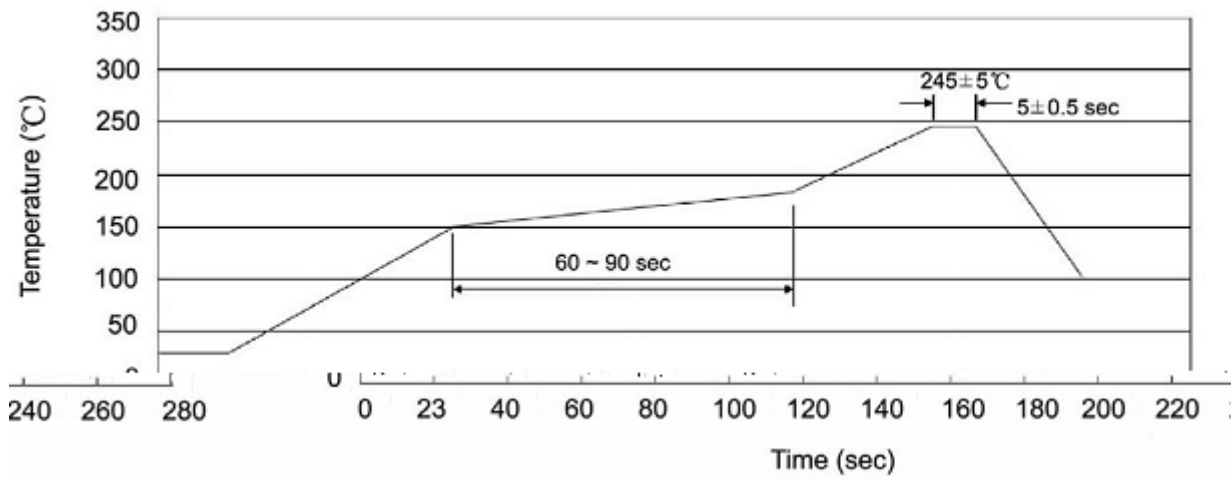


Note:

Product Type Code

Company Code

Temperature Profile for IR Reflow Soldering(Pb-Free)



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<br>封装形式 | Units 包装数量 |      |     |     |     | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |   |   |
|----------------------|------------|------|-----|-----|-----|-----------------------------------------|---|---|
|                      | 只 卷盘       | 卷盘 盒 | 只 盒 | 盒 箱 | 只 箱 |                                         | 盒 | 箱 |
|                      |            |      |     |     |     | "                                       |   |   |