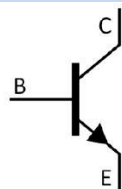


Silicon NPN transistor in a SOT-23 Plastic Package.

Large current capacity and wide ASO.

Small signal general purpose amplifier applications.

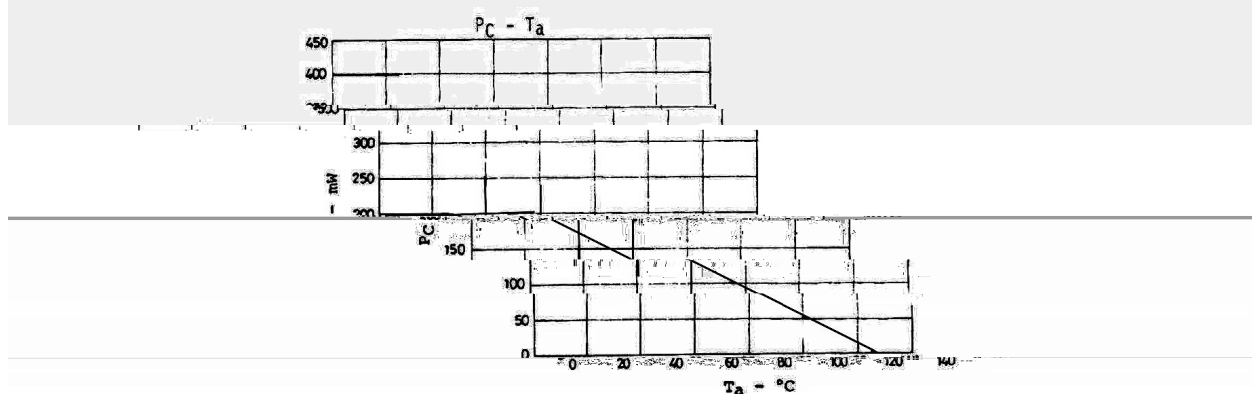
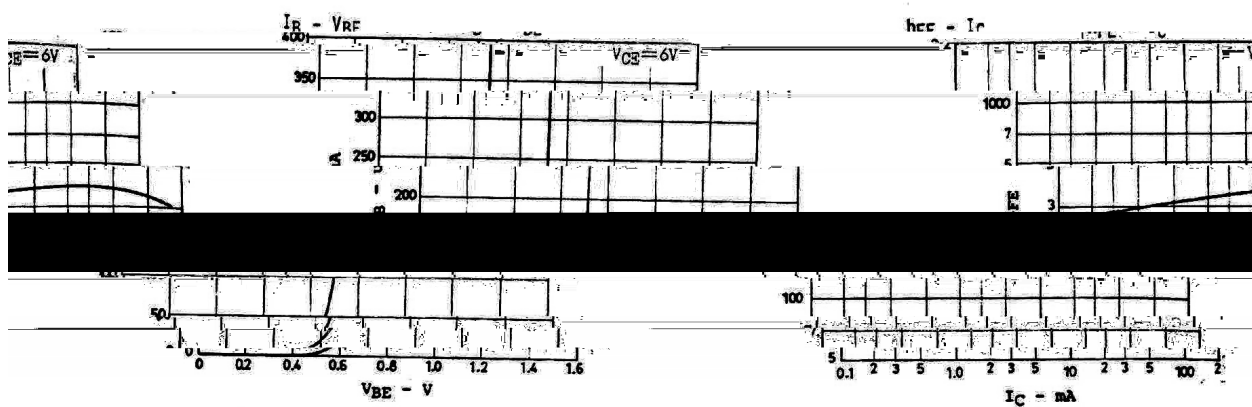


PIN1    Base            PIN 2    Emitter    PIN 3    Collector

| h <sub>FE</sub> Classifications<br>Symbol | D         | E          | F          | G          | H          |
|-------------------------------------------|-----------|------------|------------|------------|------------|
| h <sub>FE</sub> Range                     | 60    120 | 100    200 | 160    320 | 280    560 | 480    960 |
| Marking                                   | H53D      | H53E       | H53F       | H53G       | H53H       |

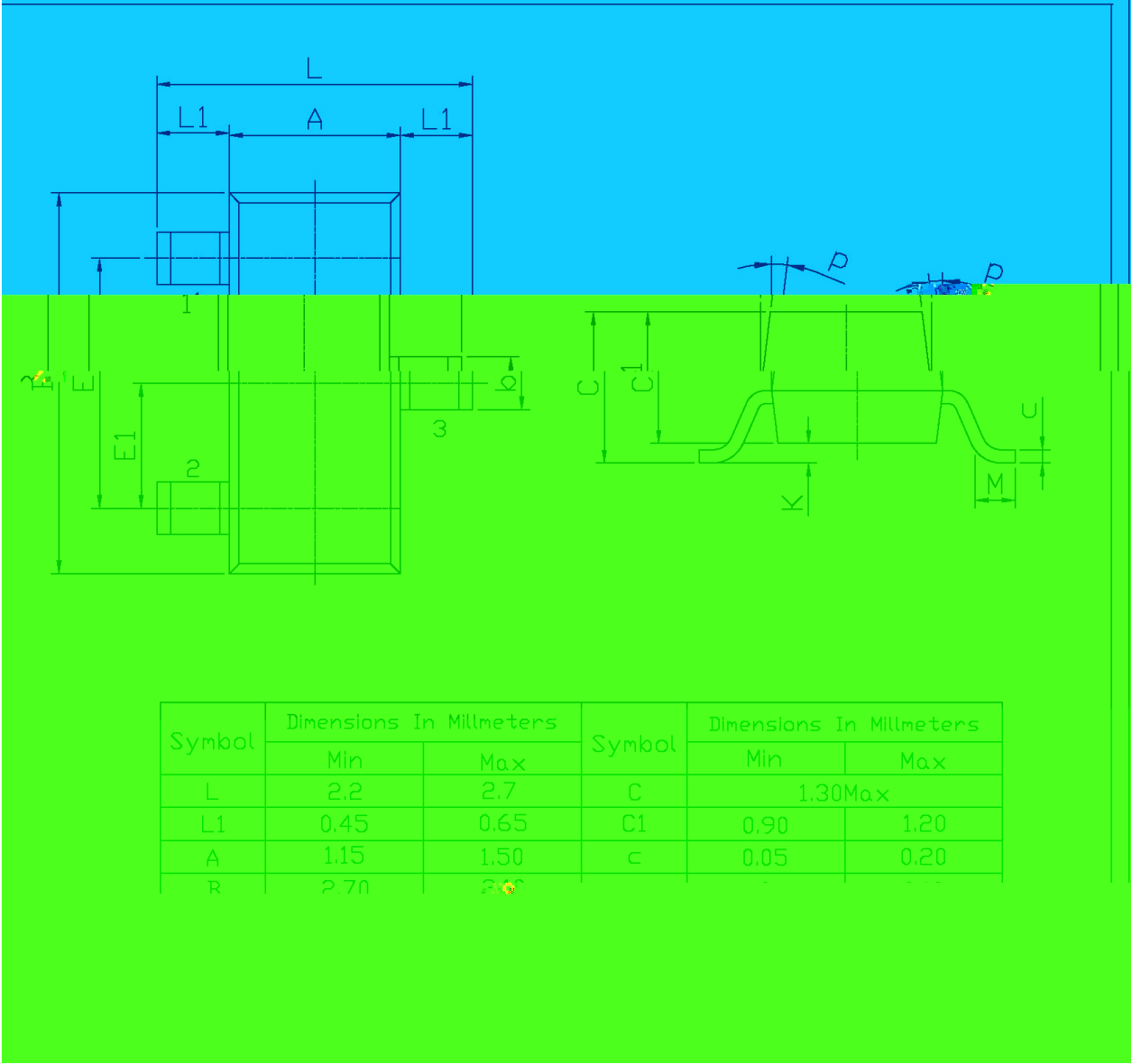
| Parameter                    |                     | Symbol    | Rating   | Unit |
|------------------------------|---------------------|-----------|----------|------|
| Collector to Base Voltage    | 2SC536M<br>2SC536KM | $V_{CBO}$ | 40<br>55 | V    |
| Collector to Emitter Voltage | 2SC536M<br>2SC536KM | $V_{CEO}$ | 30<br>50 | V    |
| Emitter to Base Voltage      |                     | $V_{EBO}$ | 5.0      | V    |
| Collector Current            |                     | $I_C$     | 100      | mA   |
| Collector Current(pulse)     |                     | $I_{CP}$  | 300      | mA   |
| Collector Power Dissipation  |                     | $P_C$     | 250      | 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            | $I_{CBO}$     | $V_{CB}=35V$ $I_E=0$                  |     |     | 1.0 | $\mu A$ |
| Emitter Base Cut-Off Current         | $I_{EBO}$     | $V_{EB}=4.0V$ $I_C=0$                 |     |     | 1.0 | $\mu A$ |
| DC Current Gain                      | $h_{FE}$      | $V_{CE}=6.0V$ $I_C=1.0mA$             | 60  |     | 960 |         |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=50mA$ $I_B=5.0mA$                |     |     | 0.5 | V       |
| Transition Frequency                 | $f_T$         | $V_{CE}=6.0V$ $I_C=1.0mA$             |     | 100 |     | MHz     |
| Collector Output Capacitance         | $C_{ob}$      | $V_{CB}=6.0V$ $f=1.0MHz$ $I_E=0$      |     | 3.5 |     | pF      |
| Collector- Base Time Constant        | $C_{C-rbb'}$  | $V_{CB}=6.0V$ $f=31.9MHz$ $I_C=1.0mA$ |     | 250 |     | pS      |

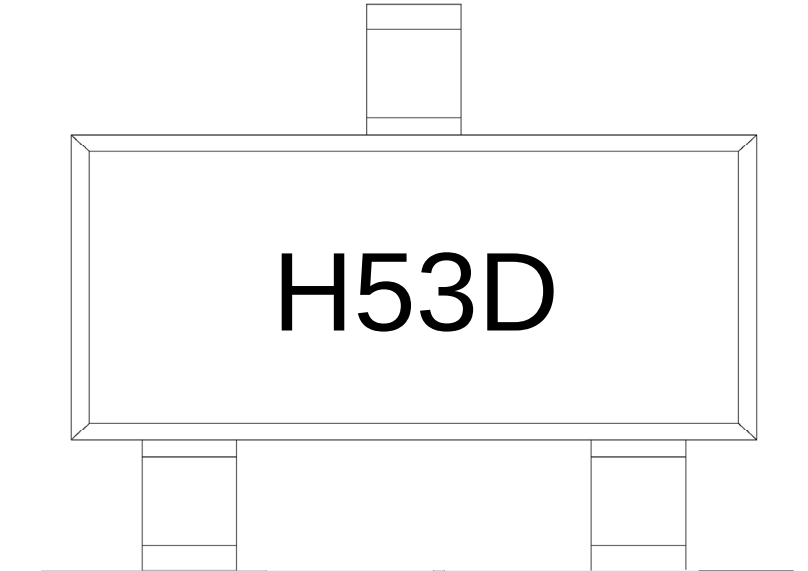


SOT-23

单位: mm



| Symbol | Dimensions In Millimeters |      | Symbol | Dimensions In Millimeters |      |
|--------|---------------------------|------|--------|---------------------------|------|
|        | Min                       | Max  |        | Min                       | Max  |
| L      | 2.2                       | 2.7  | C      | 1.30Max                   |      |
| L1     | 0.45                      | 0.65 | C1     | 0.90                      | 1.20 |
| A      | 1.15                      | 1.50 | c      | 0.05                      | 0.20 |
| R      | 2.70                      | 2.65 |        |                           |      |



$h_{FE}$

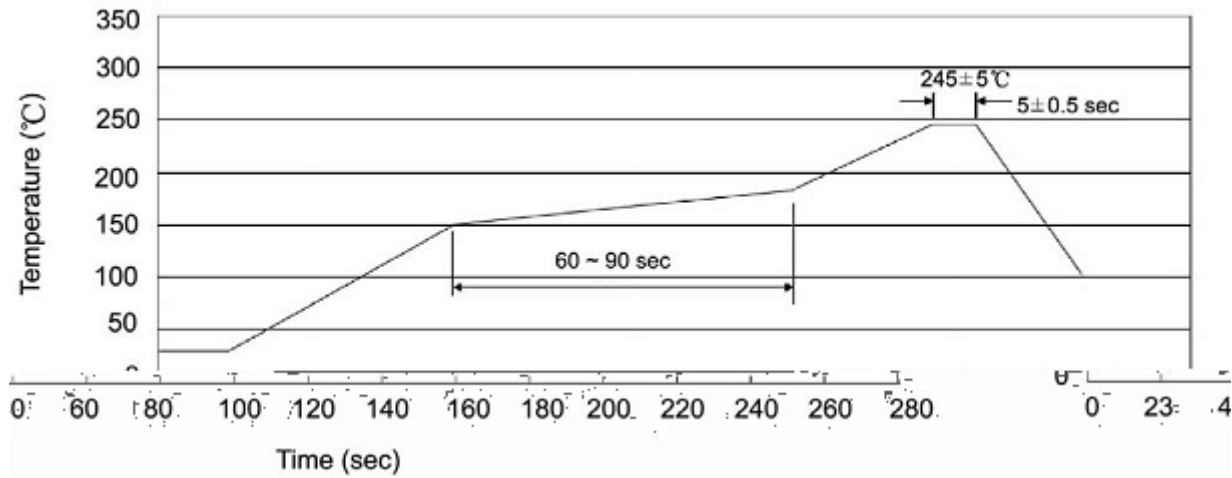
Note:

Company Code

Product Type Code

$h_{FE}$  Classifications Symbol 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 |
|                      |            |      |     |     |     |                                         |   |   |