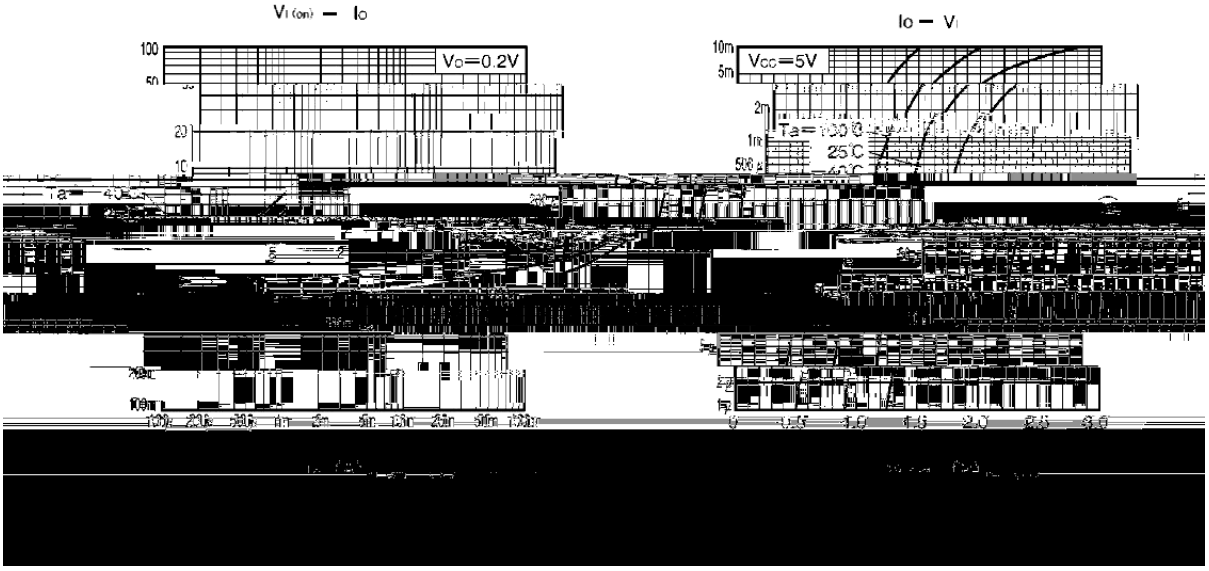
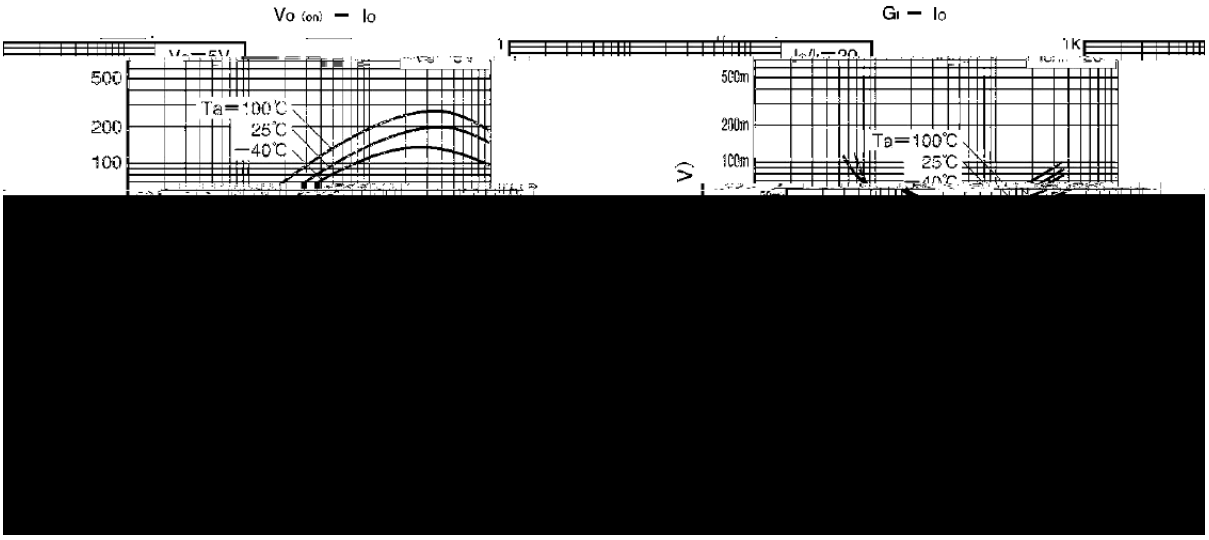
| | | |
|---|---|---|
| SOT-23 | NPN | Silicon NPN Digital transistor in a SOT-23 Plastic Package. |

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Output Voltage | $V_{CC}$ | 50 | V |
| Input Voltage | $V_{IN}$ | 40 | V |
| | | -10 | V |
| Output Current | $I_C$ | 100 | mA |
| | $I_O$ | 30 | mA |
| Power Dissipation | $P_C$ | 200 | mW |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

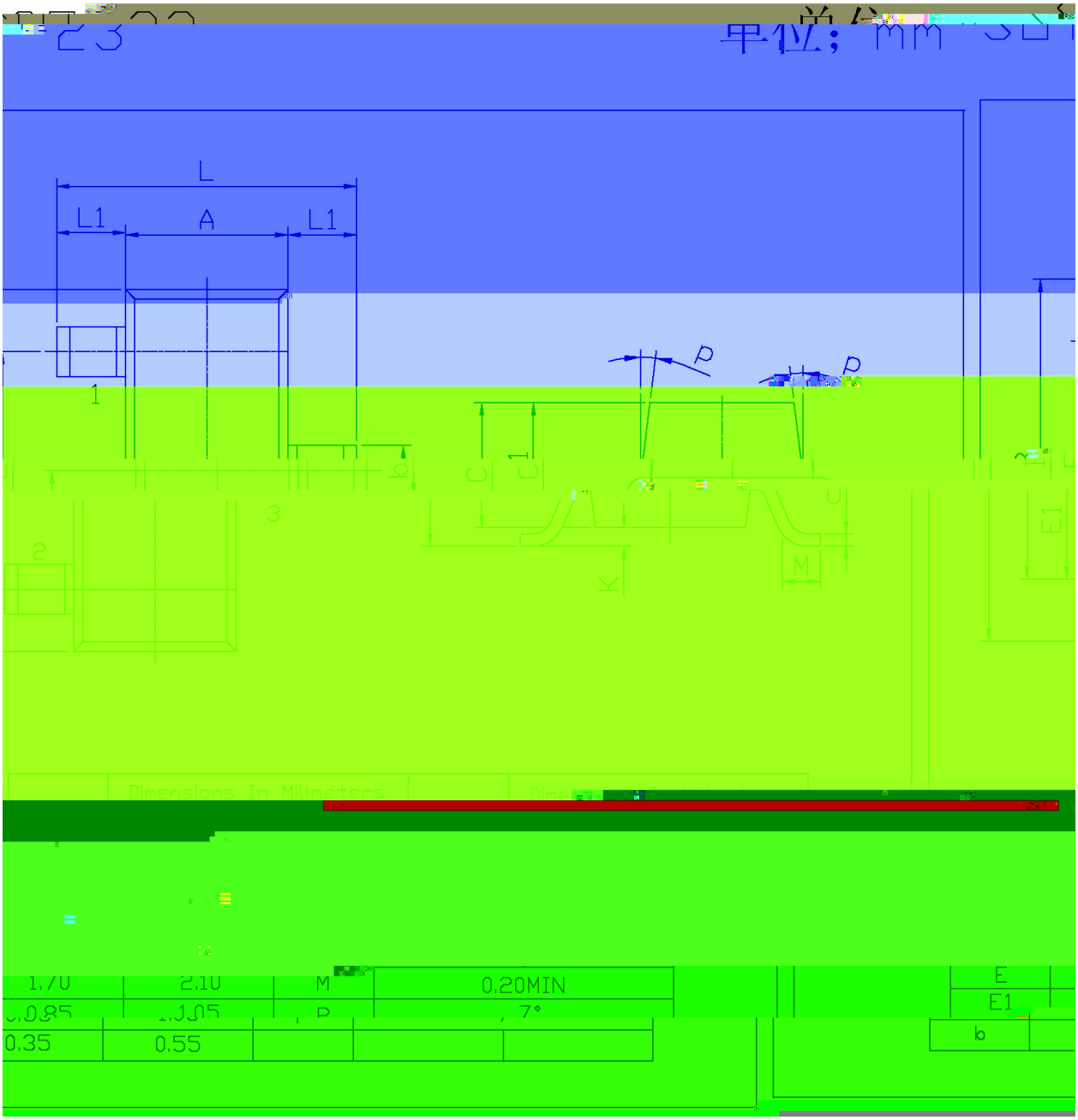
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Input Voltage(OFF) | $V_{I(off)}$ | $v_{CC}$=5.0V $I_O$=100 A | | | 0.5 | V |
| Input Voltage(ON) | $V_{I(on)}$ | $V_O$=0.2V $I_O$=5.0mA | 3.0 | | | V |
| Output Voltage | $V_{O(on)}$ | $I_O$=10mA $I_I$=0.5mA | | 0.1 | 0.3 | V |
| Input Current | $I_I$ | $V_I$=5.0V | | | 0.36 | mA |
| Output Cut-off Current | $I_{O(off)}$ | $V_{CC}$=50V $V_I$=0V | | | 0.5 | A |
| DC Current Gain | $G_I$ | $V_O$=5.0V $I_O$=5.0mA | 56 | | | |
| Transition Frequency | $f_T$ | $V_{CE}$=10V $I_C$=5.0mA f=100MHz | | 250 | | MHz |
| Resistance1 | $R_1$ | | 15.4 | 22 | 28.6 | K |
| Resistance Ratio | $R_2$2 | | | | | |

## / Electrical Characteristic Curve

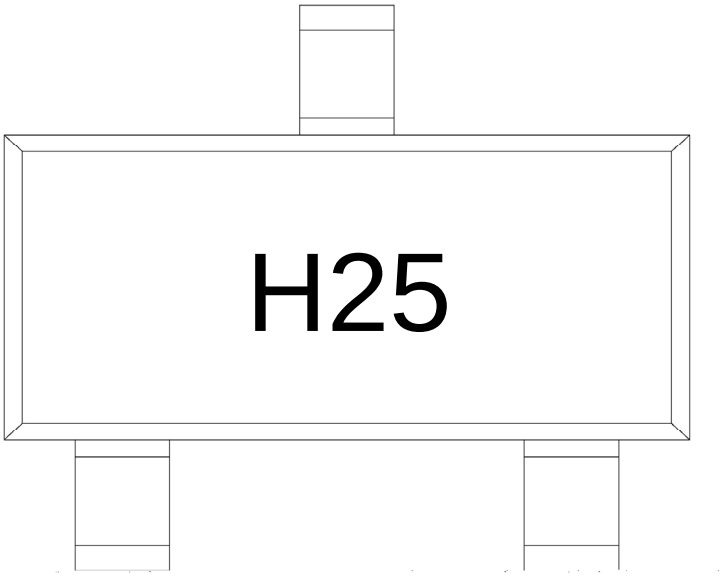


## / Package Dimensions



## / Marking Instructions



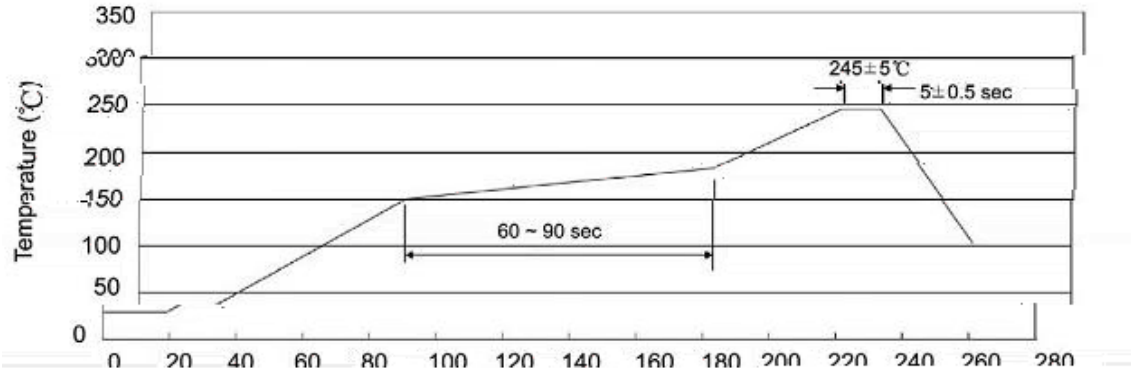

H

25

Note:

| | |
|---|---|
| H | Company Code |
| 25 | Product Type Code |

## ( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)




| | | | |
|---|---|---|---|
| | | | Note: |
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | 5±0.5sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | 2 10 /sec. | | 3. Cooling Speed: 2~10 /sec. |

## / Resistance to Soldering Heat Test Conditions

| | | | |
|---|---|---|---|
| 260±5 | 10±1 sec. | Temp.:260±5 | Time:10±1 sec |

## / Packaging SPEC.

/ REEL

| Package Type | Units | | | | | Dimension | | (unit mm$^3$) |
|---|---|---|---|---|---|---|---|---|
| | Units/Reel / | Reels/Inner Box / | Units/Inner Box / | Inner Boxes/Outer Box / | Units/Outer Box / | Reel | Inner Box | Outer Box |
| SOT-23 | 3,000 | 10 | 30,000 | 6 | 180,000 | 7 ×8 | 180×120×180 | 390×385×205 |

## / Notices