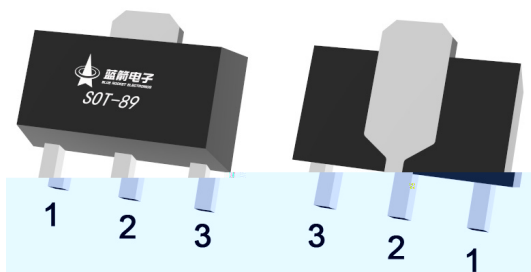
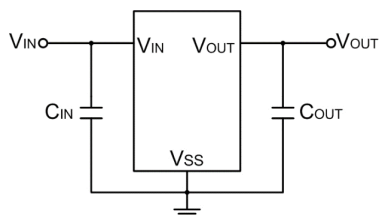


## SOT-89

Low dropout linear regulator in a SOT-89 Plastic Package .

- ◆ 2uA
- ◆ 250mA
- ◆ 450mV@100mA( $V_{OUT}=5.0V$ )
- ◆  $\pm 2\%$
- ◆ 70dB@1kHz
- ◆ 90uV<sub>RMS</sub> 10Hz~100kHz
- ◆
- ◆
- ◆
- ◆

- ◆
- ◆
- ◆
- ◆
- ◆



PIN1 GND    PIN 2 VIN    PIN 3 VOUT

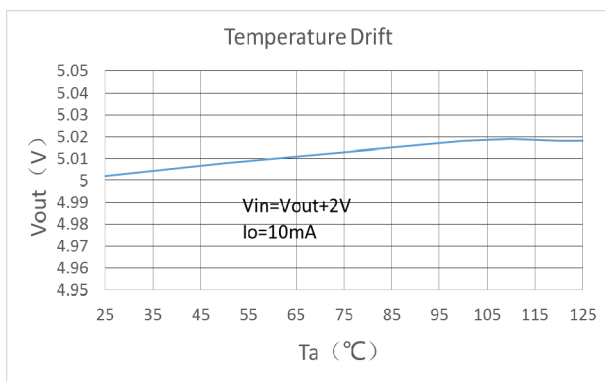
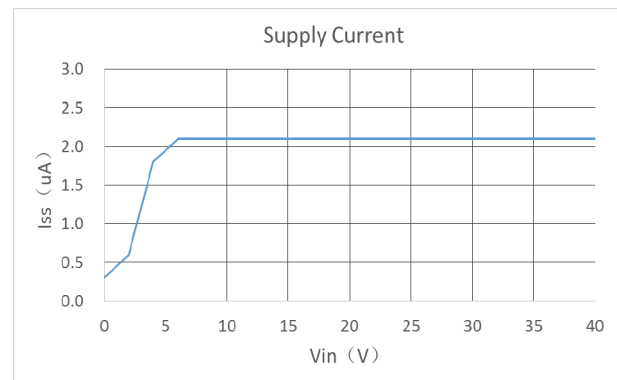
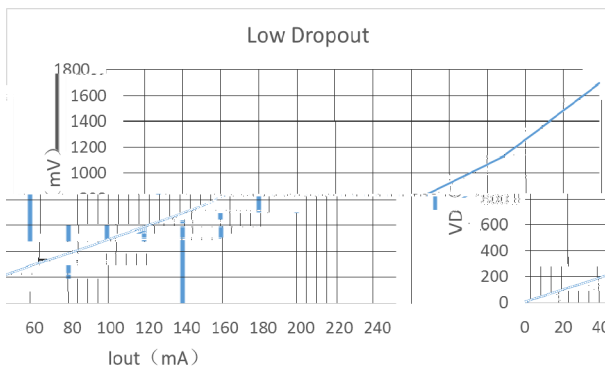
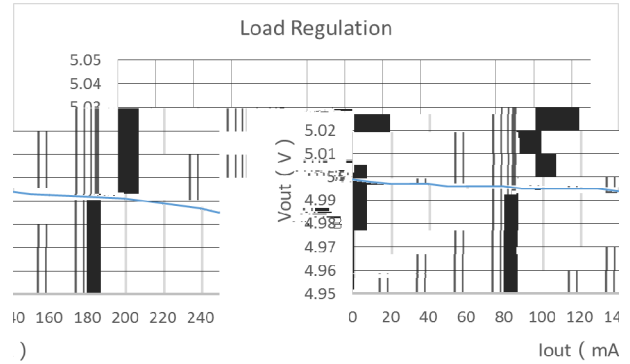
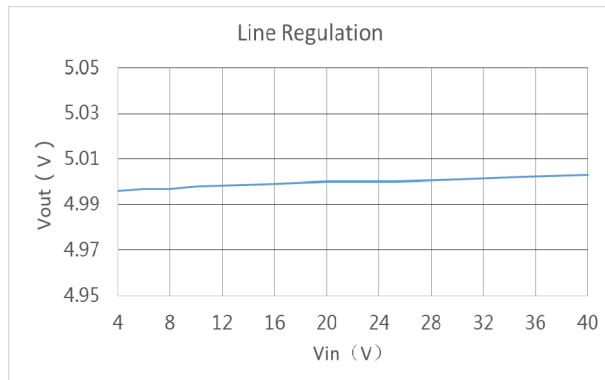
See Marking Instructions.

|     |           |             |    |
|-----|-----------|-------------|----|
|     |           |             |    |
|     | $V_{IN}$  | -0.3 to 40  | V  |
|     | $I_{OUT}$ | 250         | mA |
|     | $P_D$     | 0.6         | W  |
|     | $T_{stg}$ | -40 to +125 | °C |
|     | $T_A$     | -40 to +85  |    |
| 10s | $T_{sld}$ | 260         | °C |
|     | HBM       | 2           | kV |
|     | MM        | 200         | V  |

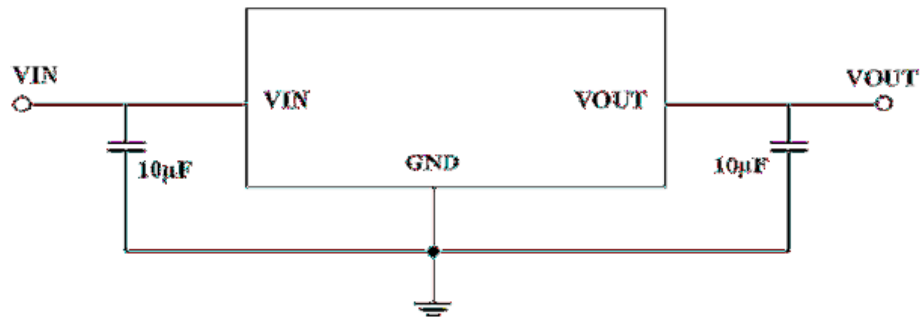
Notes: If the device operating conditions over the maximum rating of the above-mentioned conditions, may cause permanent damage to the device. The above parameters is only part of the operating conditions the maximum, we do not recommend the device running outside the scope of this specification. If the device to work long hours under the condition of absolute maximum limit, its stability may be affected.

|   |                                       |                                                         |     |     |     |      |
|---|---------------------------------------|---------------------------------------------------------|-----|-----|-----|------|
|   |                                       |                                                         |     |     |     |      |
|   | $V_{IN}$                              |                                                         |     |     | 36  | V    |
| 1 | $V_{OUT\ E}$                          | $I_{OUT}=10mA$                                          | 4.9 | 5.0 | 5.1 | V    |
| 2 | $V_{dif}$                             | $I_{OUT}=100mA$<br>$V_{OUT}=5.0V$                       |     | 450 |     | mV   |
|   | $I_{SS}$                              | $I_{OUT}=0mA$                                           |     | 2   | 5   | uA   |
|   | $V_{load}$                            | $V_{IN}=V_{OUT\ S}+2V$<br>$1mA \leq I_{OUT} \leq 250mA$ |     | 20  | 50  | mV   |
|   | $V_{line}$                            | $I_{OUT}=10mA$<br>$V_{OUT\ S}+2V \leq V_{IN} \leq 36V$  |     | 10  | 50  | mV   |
|   | $V_{OUT}/$<br>( $T_A \cdot V_{OUT}$ ) | $I_{OUT}=10mA$<br>$-40 \leq T_A \leq 85$                |     | 50  |     | ppm/ |
|   | $I_{LIM}$                             | $V_{OUT}=0.5 \times$<br>$V_{OUT(Normal)}, V_{IN}=7.0V$  |     | 350 |     | mA   |
|   | $I_{SHORT}$                           | $V_{OUT}=V_{SS}$                                        |     | 100 |     | mA   |

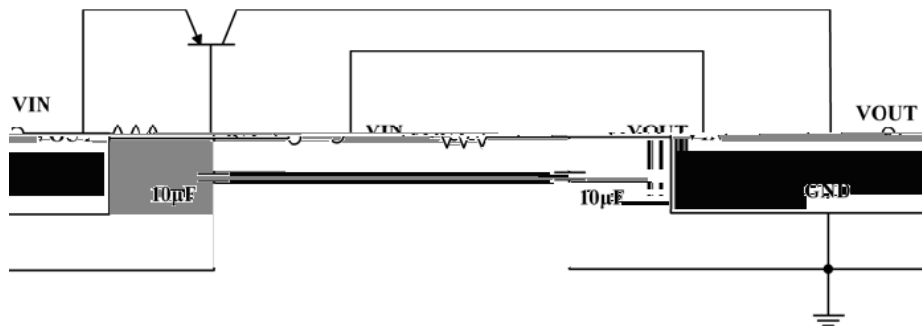




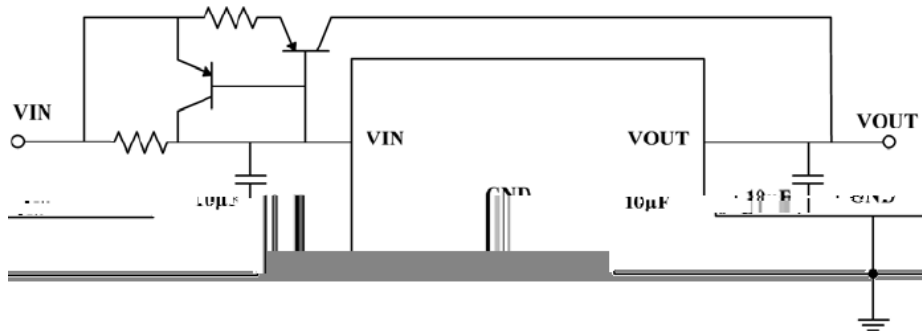
/ Basic Application



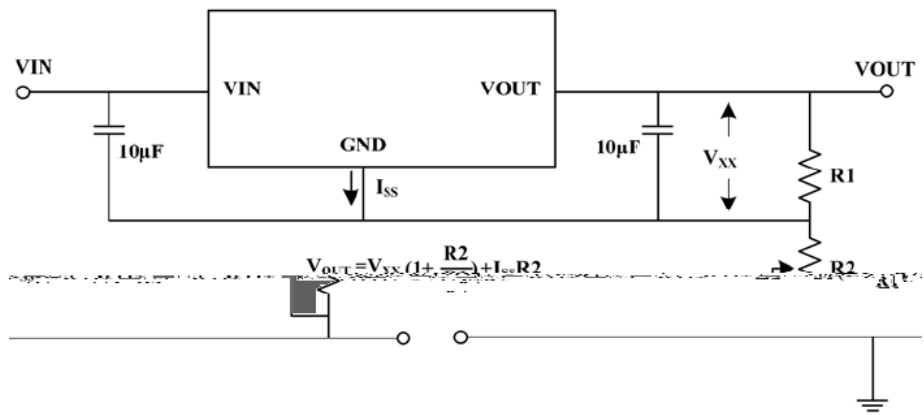
/ High Output Current Voltage Regulator



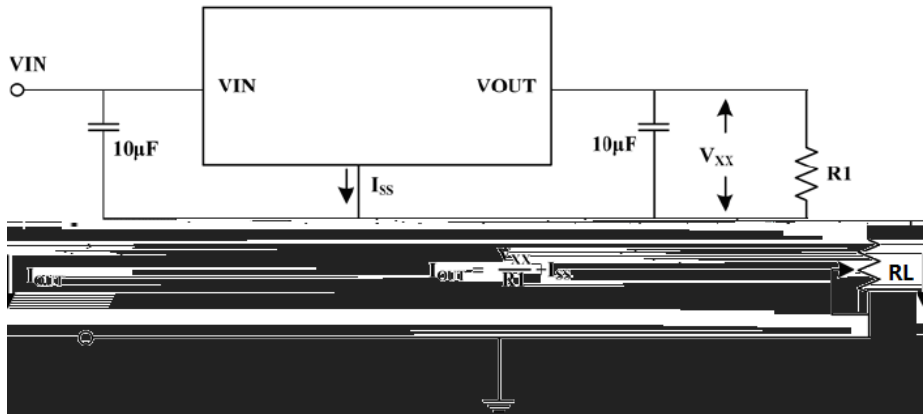
/ Short-Circuit Protection



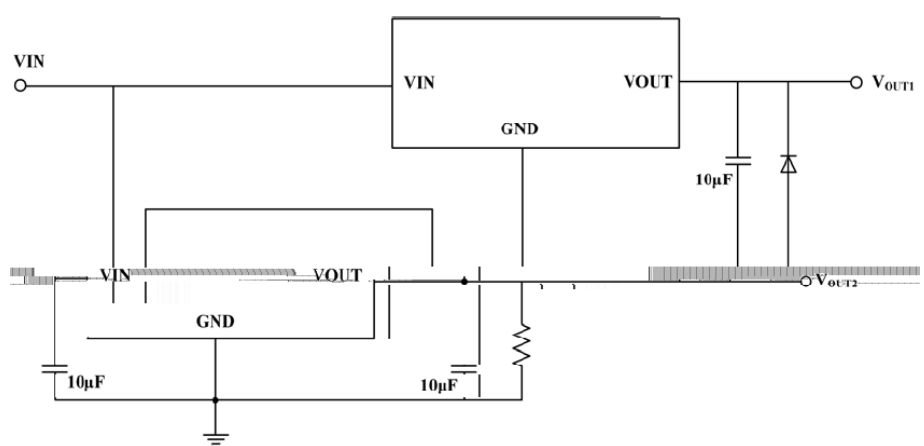
/ Circuit for Increasing Output Voltage



/ Constant Current Regulator

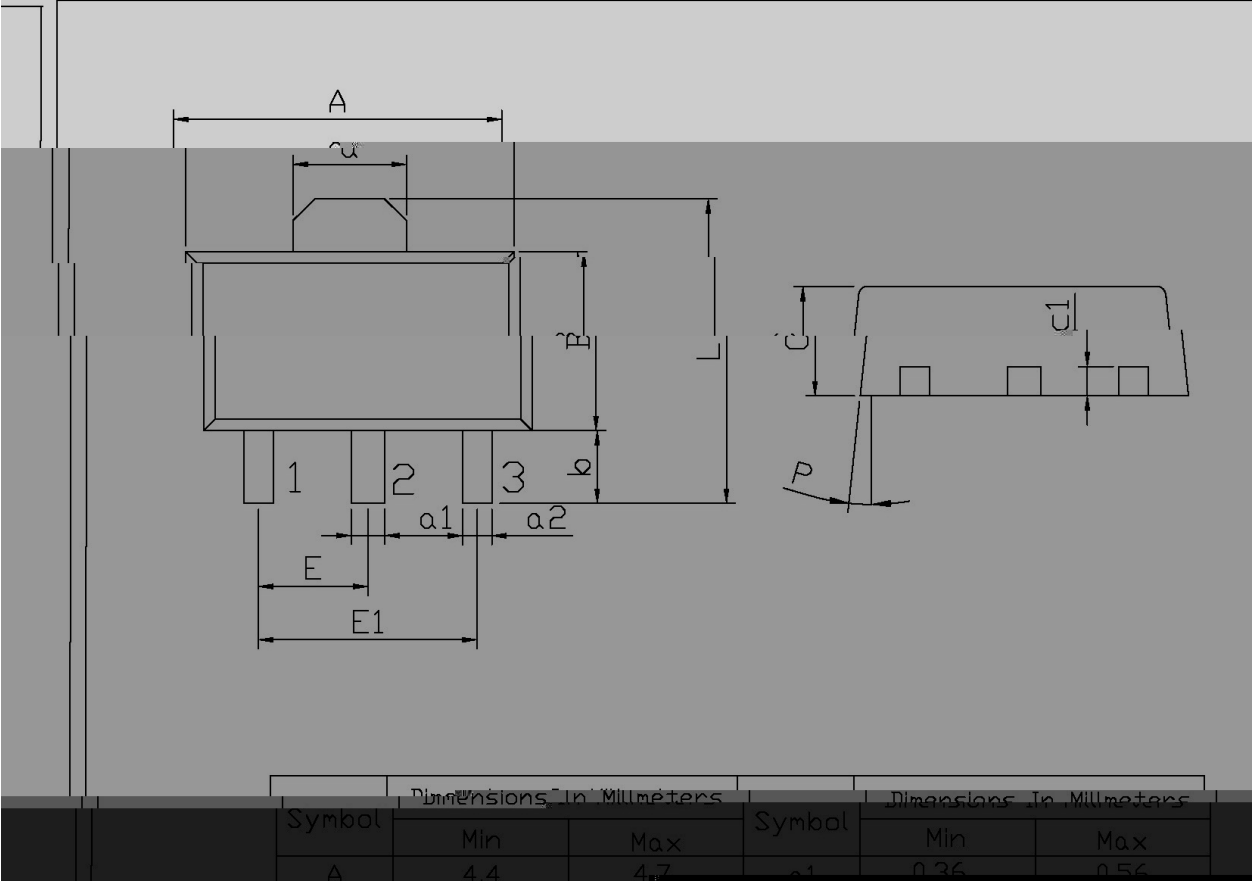


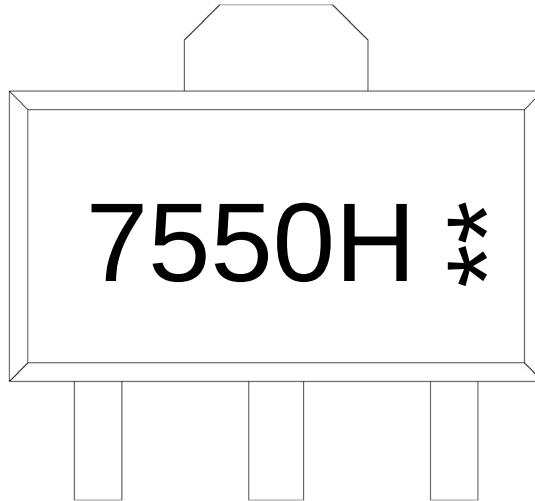
/ Double Output Circuit



FS01284

单位: mm





7550H

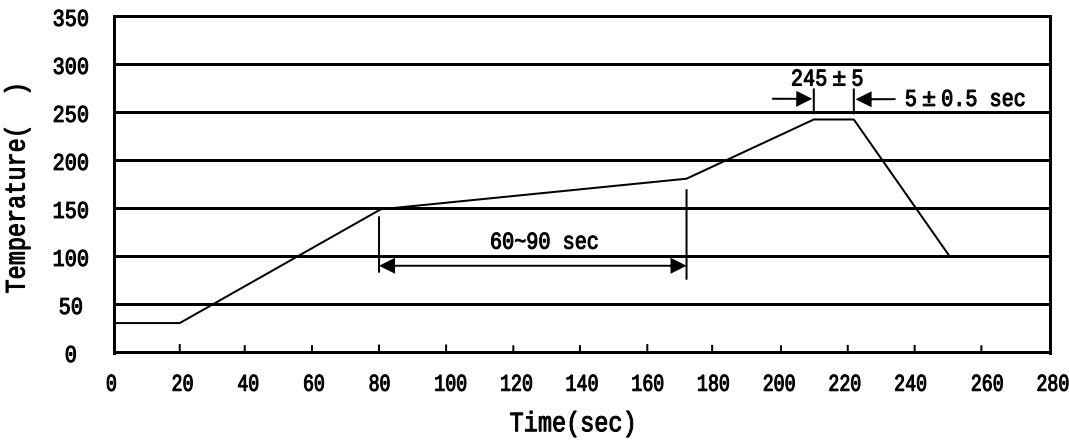
\*\*

Note:

7550H: Product Type Code

\*\* : Lot No. Code, code change with Lot No

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- |   |       |     |    |           |                                            |
|---|-------|-----|----|-----------|--------------------------------------------|
| 1 | 150   | 180 | 60 | 90sec;    | 1.Preheating:150~180 °C , Time:60~90sec.   |
| 2 | 245±5 |     |    | 5±0.5sec; | 2.Peak Temp.:245±5 °C , Duration:5±0.5sec. |
| 3 |       | 2   | 10 | /sec.     | 3. Cooling Speed: 2~10 °C/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-89       | 1,000      | 10              | 10,000          | 4                     | 40,000          | 7 ×12                             | 210×205×205 | 445×435×230 |