

## / Descriptions

SOT-89

Voltage Regulator in a SOT-89 Plastic Package.

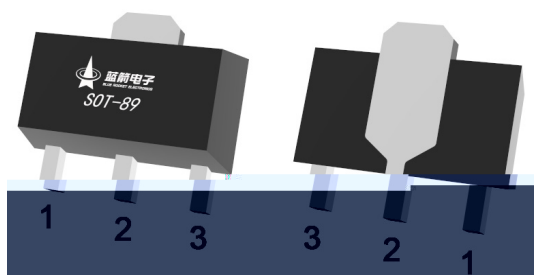
**Typical Values (TA=25°C)**

100mA,

3-Terminal regulators ,output current up to 100 mA, internal thermal overload protection and short-circuit limiting, HF Product.

Voltage Regulator.

## / Equivalent Circuit or Application Circuit



PIN1 OUT PIN 2 GND PIN 3 IN

## / Marking

See Marking Instructions.

**/ Absolute Maximum Ratings(Ta=25 )**

| Parameter                              | Symbol          | Rating  | Unit |
|----------------------------------------|-----------------|---------|------|
| Input voltage                          | $V_I$           | 36      | V    |
| Output current                         | $I_O$           | 100     | mA   |
| Operating virtual Junction temperature | $T_J$           | 0 125   |      |
| Power Dissipation                      | $P_D$           | 500     | mW   |
| Storage temperature range              | $T_{stg}$       | -65 150 |      |
| Thermal resistance junction-ambient    | $R_{\theta JA}$ | 200     | /W   |

**/ Electrical Characteristics(Ta=25  $V_I=19V, I_O=40mA$  unless otherwise specified)**

| Parameter            | Symbol | Test Conditions                         | Min  | Typ | Max  | Unit    |
|----------------------|--------|-----------------------------------------|------|-----|------|---------|
| Output voltage       | $V_O$  | $I_O = 40mA$ $T_J=25$                   | 11.5 | 12  | 12.6 | V       |
|                      |        | $I_O=1mA$ to 40mA<br>$V_I=14.5V$ to 27V | 11.4 |     | 12.6 | V       |
|                      |        | $I_O=1mA$ to 70mA<br>$V_I=19V$          | 11.4 |     | 12.6 | V       |
| Input regulation     | $V_O$  | $V_I=14.5V$ to 27V $T_J=25$             |      | 24  | 250  | mV      |
|                      |        | $V_I=16V$ to 27V $T_J=25$               |      | 12  | 200  | mV      |
| Output regulation    | $V_O$  | $I_O=1mA$ to 100mA<br>$T_J=25$          |      | 36  | 100  | mV      |
|                      |        | $I_O=1mA$ to 40 mA<br>$T_J=25$          |      | 24  | 50   | mV      |
| Ripple rejection     | RR     | $V_I=15V$ to 25V $f=120Hz$<br>$T_J=25$  | 36   | 42  |      | dB      |
| Output noise voltage | $V_N$  | $f=10Hz \sim 100KHz$ $T_J=25$           |      | 80  |      | $\mu V$ |
| Dropout voltage      | $V_D$  | $T_J=25$                                |      | 2   |      | V       |
| Bias current         | $I_Q$  | $T_J=25$                                |      | 2.0 | 5.5  | mA      |
| Bias current change  | $I_Q$  | $V_I=16V$ to 27V                        |      |     | 1.5  | mA      |
|                      |        | $I_O=1mA$ to 40mA                       |      |     | 0.1  | mA      |

/ Electrical Characteristic Curve

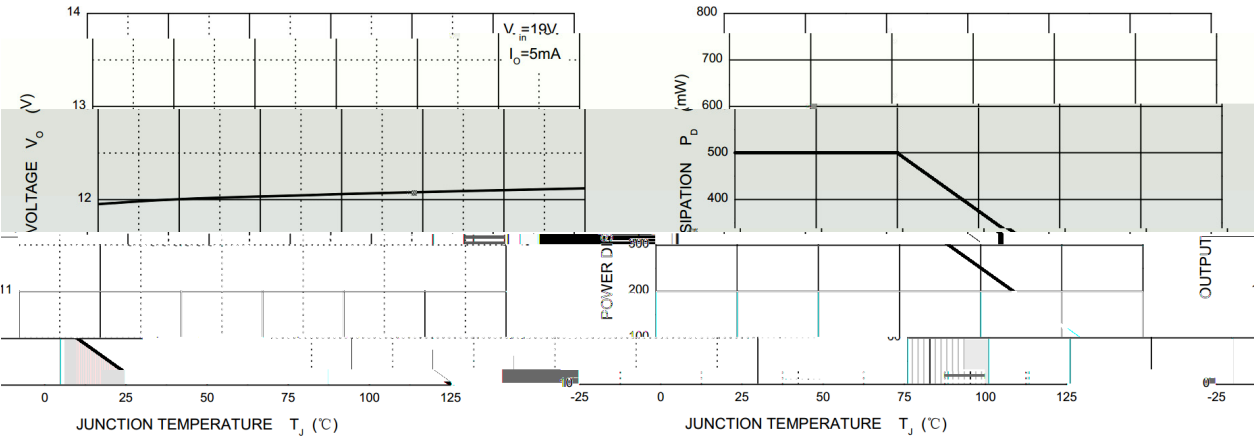
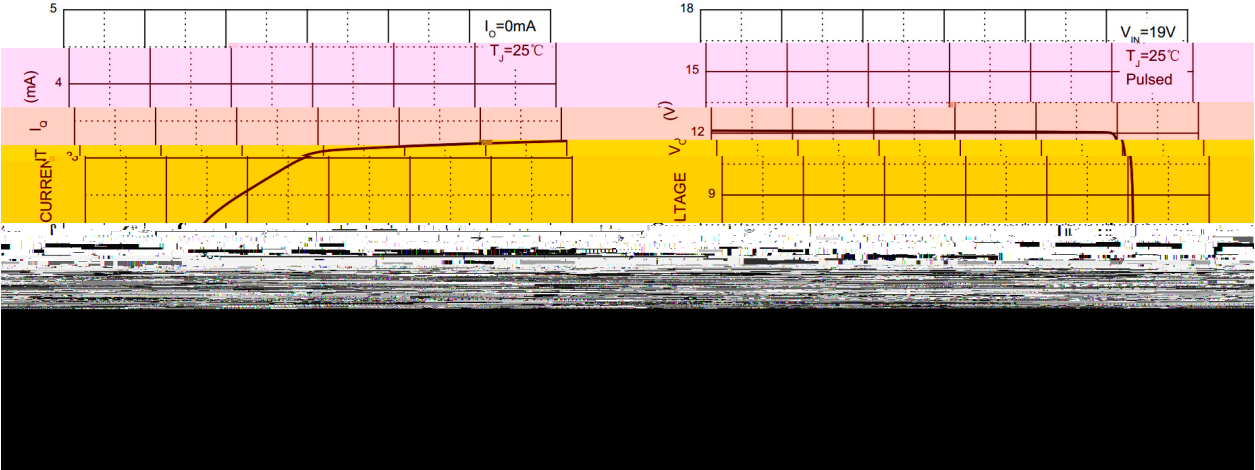
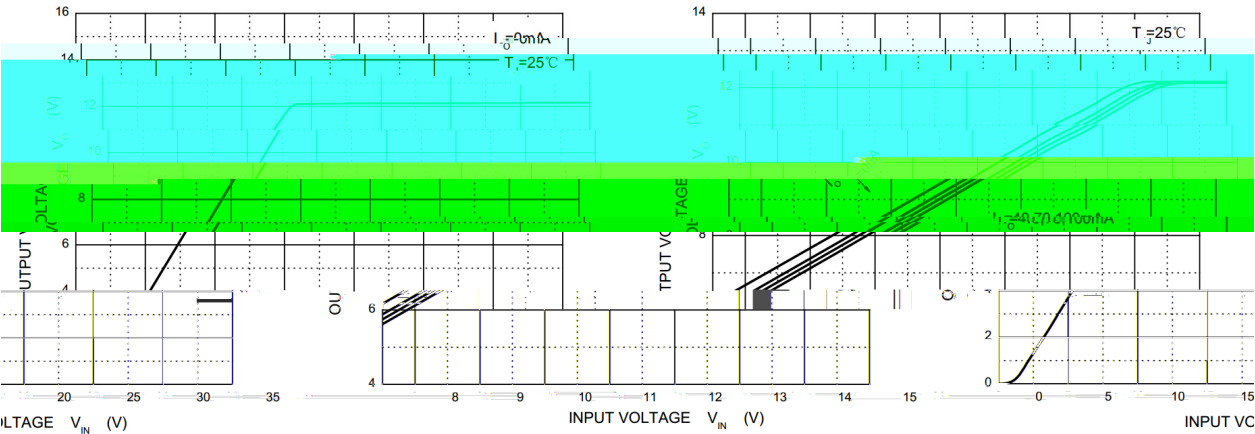
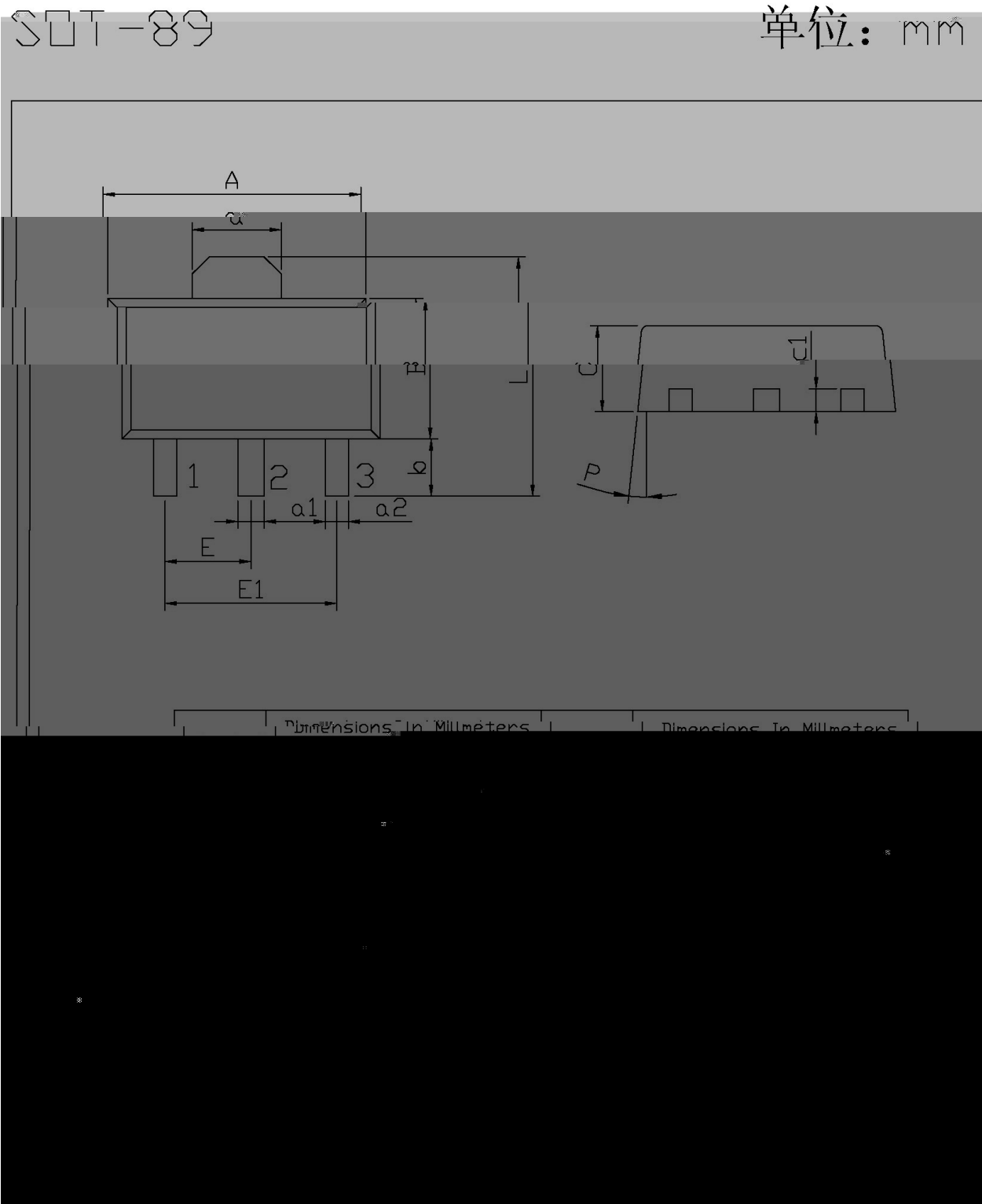
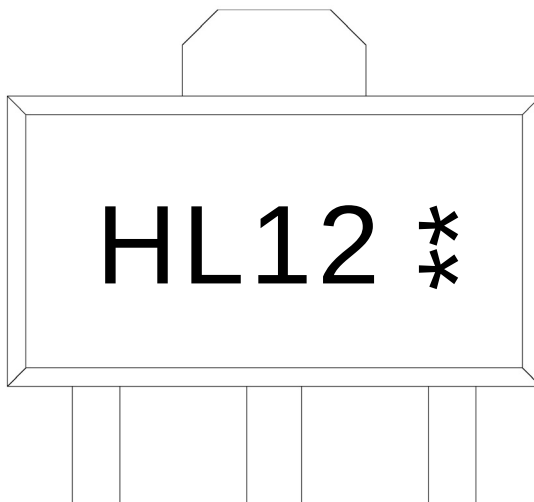


Figure 6. Power Derating Curve

/ Package Dimensions



**/ Marking Instructions**



H

L12

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Note:

H: Company Code

L12: Product Type Code

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

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

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Note:

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