



SHENZHEN LONG JING MICRO-ELECTRONICS CO., LTD.

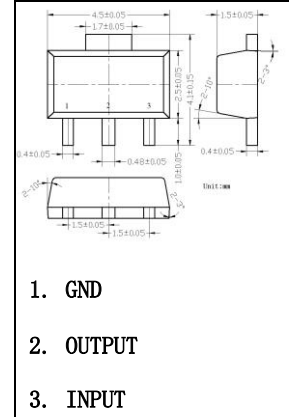
## SOT-89 LOW DROPOUT LINEAR REGULATOR

### AMS1117-1.2

#### FEATURES

- Low Dropout Voltage:1.15V at 1A Output Current
- Trimmed Current Limit
- On-Chip Thermal Shutdown
- Operation junction Temperature: 0°C to 125°C

Marking: AMS11171.2LJ13



Operating Conditions:  $V_{IN} \leq 10V$ ,  $T_J = 25^\circ C$  unless otherwise specified.

| Parameter                          | Conditions                                                                            | Min   | Typ   | Max   | Unit       |
|------------------------------------|---------------------------------------------------------------------------------------|-------|-------|-------|------------|
| Output Voltage                     | $I_{OUT}=10mA, V_{IN}=3.2V$<br>$10mA \leq I_{OUT} \leq 1A, 3.0V \leq V_{IN} \leq 10V$ | 1.176 | 1.2   | 1.224 | V          |
| Line Regulation                    | $V_{INMIN} \leq V_{IN} \leq 12V$<br>$V_{OUT} = \text{Fixed/Adj}, I_{OUT}=10mA$        |       |       | 7     | mV         |
| Load Regulation                    | $V_{OUT} = \text{Fixed/Adj}, 10mA \leq I_{OUT} \leq 1A$                               |       |       | 15    | mV         |
| Dropout Voltage                    | $\Delta V_{REF}=1\%, I_{OUT}=1A$                                                      |       | 1.15  | 1.5   | V          |
| Current Limit                      | $V_{IN}-V_{OUT}=2V$                                                                   | 1.25  | 1.35  |       | A          |
| Adjust Pin Current                 |                                                                                       |       | 60    | 120   | uA         |
| Adjust Pin Current Change          | $1.4V \leq V_{IN}-V_{OUT} \leq 10V, 10mA \leq I_{OUT} \leq 1A$                        |       | 0.2   | 5     | uA         |
| Quiescent Current                  | $V_{IN}=V_{OUT}+1.25V$                                                                |       | 5     | 10    | mA         |
| Ripple Rejection                   | $f=120Hz, C_{OUT}=22\mu f$ Tantalum,<br>$V_{IN}-V_{OUT}=3V, I_{OUT}=1A$               | 60    | 75    |       | dB         |
| Temperature Stability              |                                                                                       |       | 0.5   |       | %          |
| Long-Term Stability                | $T_a=125^\circ C, 1000hrs$                                                            |       | 0.3   |       | %          |
| RMS Output Noise (% of $V_{OUT}$ ) | $T_a=25^\circ C, 10Hz \leq f \leq 10KHz$                                              |       | 0.003 |       | %          |
| Thermal Shutdown                   | Junction Temperature                                                                  |       | 150   |       | $^\circ C$ |
| Thermal Shutdown Hysteresis        |                                                                                       |       | 25    |       | $^\circ C$ |