



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

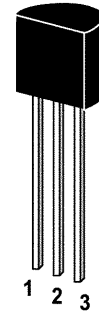
TEL: 852-2790 0314 FAX: 852-2790 0206

ST 78L06

3-Terminal positive voltage regulator

6V

- Suitable for TTL, DTL, HTL, C-MOS, Power Supply
- Internal Short-Circuit Current Limiting
- Internal Thermal Overload Protection
- Maximum Output Current of 150mA ($T_j=25^{\circ}\text{C}$)
- Available in the Plastic TO-92 Package

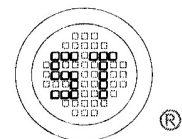


1. Output 2. Common 3. Input

TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings ($T_a = 25^{\circ}\text{C}$)

| | Symbol | Rating | Unit |
|---------------------------|-----------|---------|--------------------|
| Input Voltage | V_{IN} | 35 | V |
| Power Dissipation | P_{tot} | 800 | mW |
| Operating Temperature | T_{opr} | -30~75 | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_s | -55~150 | $^{\circ}\text{C}$ |



SEMTECH
Dated : 07/12/2002



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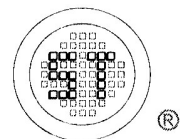
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Electrical Characteristics

(Unless otherwise specified, $V_{IN}=11V$, $I_{OUT}=40mA$, $C_{IN}=0.33\mu F$, $C_{OUT}=0.1\mu F$, $T_J=25^\circ C$)

| | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|---|--------------------|---|------|------|------|---------------|
| Output Voltage | V_{OUT} | | 5.76 | 6.0 | 6.24 | V |
| Input Regulation | Reg. line | $8.1V \leq V_{IN} \leq 21V$ | - | 50 | 150 | mV |
| | | $9.0V \leq V_{IN} \leq 21V$ | - | 45 | 110 | |
| Load Regulation | Reg. load | $1.0mA \leq I_{OUT} \leq 100mA$ | - | 12 | 70 | mV |
| | | $1.0mA \leq I_{OUT} \leq 40mA$ | - | 5.5 | 35 | |
| Output Voltage | V_{OUT} | $8.1V \leq V_{IN} \leq 21V$ $1.0mA \leq I_{OUT} \leq 40mA$ | 5.7 | - | 6.3 | V |
| | V_{OUT} | $V_{IN}=11V$ $1.0mA \leq I_{OUT} \leq 70mA$ | 5.7 | - | 6.3 | V |
| Quiescent Current | I_B | | - | 3.1 | 6 | mA |
| Quiescent Current Change | With line | ΔI_B | | | | mA |
| | With load | | | | | |
| | | $9.0V \leq V_{IN} \leq 20V$ | - | - | 1.5 | |
| | | $1.0mA \leq I_{OUT} \leq 40mA$ | - | - | 0.1 | |
| Output Noise Voltage | V_{NO} | $T_a=25^\circ C$, $10Hz \leq f \leq 100KHz$ | - | 40 | - | μV |
| Ripple Rejection | RR | $f=120Hz$, $9.0V \leq V_{IN} \leq 19V, T_J=25^\circ C$ | 39 | 47 | - | dB |
| Dropout Voltage | $ V_{IN}-V_{OUT} $ | $T_J=25^\circ C$ | - | 1.7 | - | V |
| Average Temperature Coefficient of Output Voltage | TC_{VO} | $I_{OUT}=5mA$ | - | -0.7 | - | $mV/^\circ C$ |



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