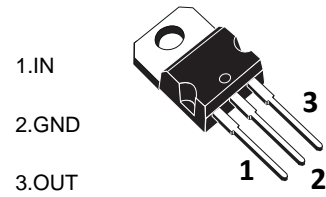




Features

- Maximum output current I_{OM} : 1 A
- Output voltage V_O : 6V
- Continuous total dissipation P_D : 1.5 W ($T_a=25^\circ\text{C}$)



Maxmim Ratings ($T_a=25^\circ\text{C}$ unless otherwise noted)

TO-220S

| Parameter | Symbol | Value | Unit |
|---|-----------------|----------|--------------------|
| Input Voltage | V_i | 35 | V |
| Thermal Resistance from Junction to Air | $R_{\theta JA}$ | 66.7 | $^\circ\text{C/W}$ |
| Operating Junction Temperature Range | T_{OPR} | -25~+125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -65~+150 | $^\circ\text{C}$ |

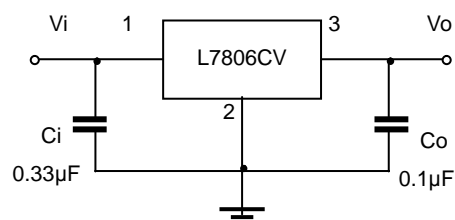
Electrcal Charcteristics ($T_a=25^\circ\text{C}$ unless otherwise specified)

($V_i=-11\text{V}$, $I_o=500\text{mA}$, $C_i=2.2\mu\text{F}$, $C_o=1\mu\text{F}$, unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------|-----------------------|---|--------------------------|------|------|----------------------|
| Output voltage | V_o | 25°C | 5.75 | 6 | 6.25 | V |
| | | $8\text{V}\leq V_i\leq 21\text{V}$, $I_o=5\text{mA}-1\text{A}$ | -25-125 $^\circ\text{C}$ | 5.7 | 6 | 6.3 |
| Load Regulation | ΔV_o | $I_o=5\text{mA}-1\text{A}$ | 25°C | 14 | 120 | mV |
| | | $I_o=250\text{mA}-750\text{mA}$ | 25°C | 4 | 60 | mV |
| Line regulation | ΔV_o | $8\text{V}\leq V_i\leq 25\text{V}$ | 25°C | 5 | 120 | mV |
| | | $9\text{V}\leq V_i\leq 13\text{V}$ | 25°C | 1.5 | 60 | mV |
| Quiescent Current | I_q | 25°C | | 4.3 | 8 | mA |
| Quiescent Current Change | ΔI_q | $8\text{V}\leq V_i\leq 25\text{V}$ | -25-125 $^\circ\text{C}$ | | 1.3 | mA |
| | | $5\text{mA}\leq I_o\leq 1\text{A}$ | -25-125 $^\circ\text{C}$ | | 0.5 | mA |
| Output voltage drift | $\Delta V_o/\Delta T$ | $I_o=5\text{mA}$ | 0-125 $^\circ\text{C}$ | -0.8 | | mV/ $^\circ\text{C}$ |
| Output Noise Voltage | V_N | 10Hz $\leq f\leq$ 100KHz | 25°C | 45 | | $\mu\text{V}/V_o$ |
| Ripple Rejection | RR | $9\text{V}\leq V_i\leq 19\text{V}$, $f=120\text{Hz}$ | -25-125 $^\circ\text{C}$ | 59 | 75 | dB |
| Dropout Voltage | V_d | $I_o=1\text{A}$ | 25°C | 2 | | V |
| Output resistance | R_o | $f=1\text{KHz}$ | 25°C | 10 | | m Ω |
| Short Circuit Current | I_{sc} | 25°C | | 550 | | mA |
| Peak Current | I_{pk} | 25°C | | 2.2 | | A |

* Pulse test.

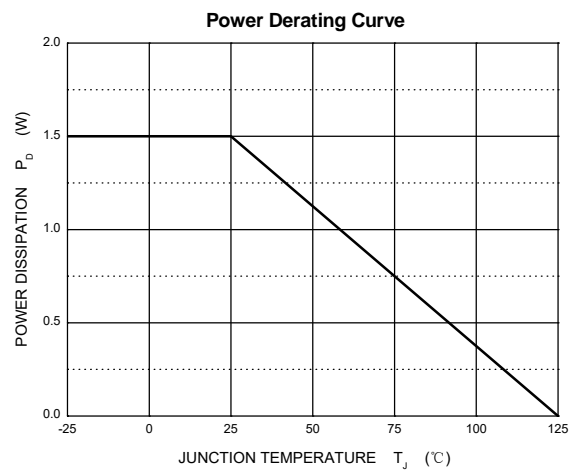
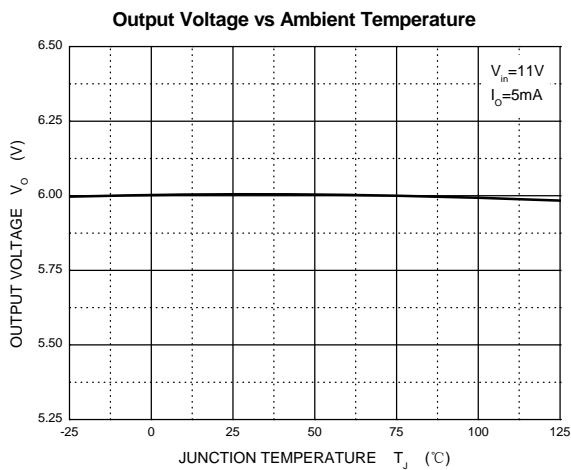
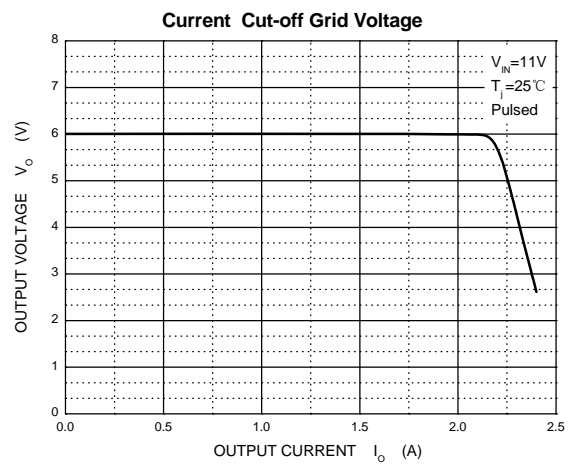
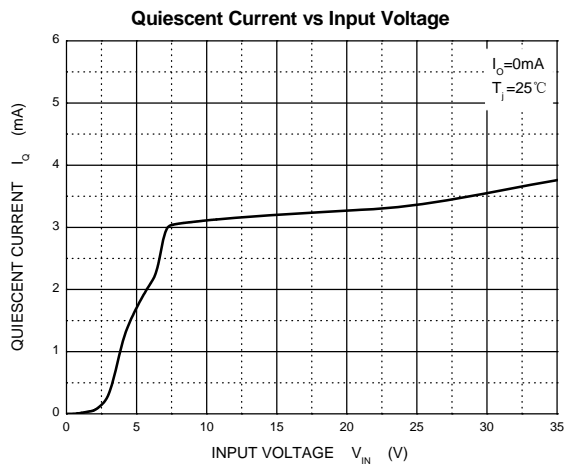
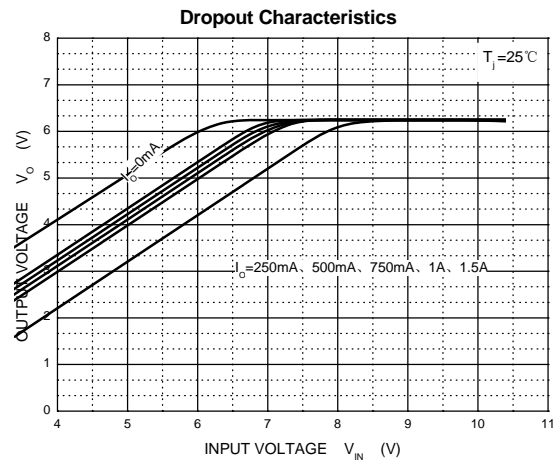
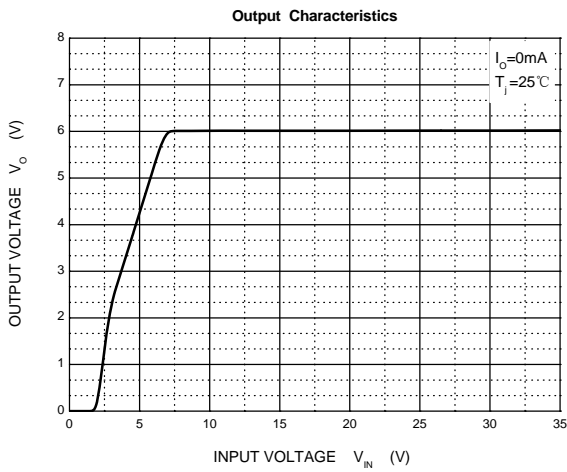
Typical Application



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

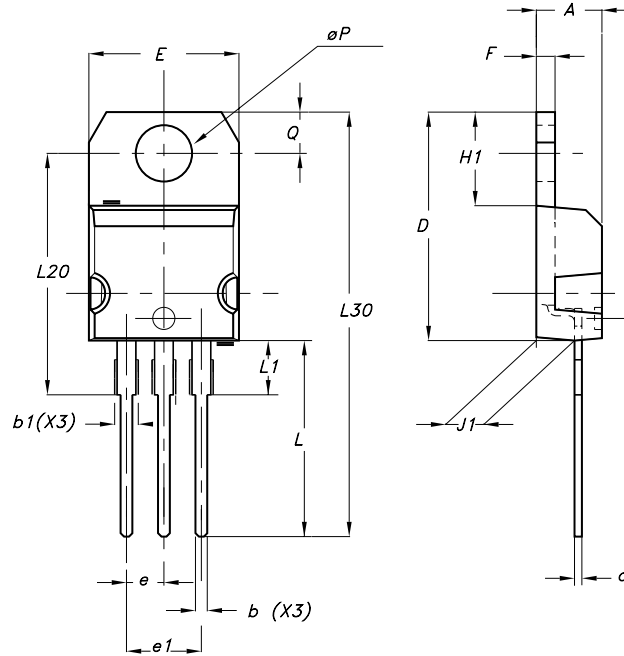


Typical Characteristics





Package Information
TO-220S



| DIM. | mm. | | | inch | | |
|----------|-------|-------|-------|-------|-------|-------|
| | MIN. | TYP. | MAX. | MIN. | TYP. | MAX. |
| A | 4.40 | | 4.60 | 0.173 | | 0.181 |
| b | 0.61 | | 0.88 | 0.024 | | 0.034 |
| b1 | 1.15 | | 1.70 | 0.045 | | 0.066 |
| c | 0.49 | | 0.70 | 0.019 | | 0.027 |
| D | 15.25 | | 15.75 | 0.60 | | 0.620 |
| E | 10 | | 10.40 | 0.393 | | 0.409 |
| e | 2.40 | | 2.70 | 0.094 | | 0.106 |
| e1 | 4.95 | | 5.15 | 0.194 | | 0.202 |
| F | 1.23 | | 1.32 | 0.048 | | 0.052 |
| H1 | 6.20 | | 6.60 | 0.244 | | 0.256 |
| J1 | 2.40 | | 2.72 | 0.094 | | 0.107 |
| L | 13 | | 14 | 0.511 | | 0.551 |
| L1 | 3.50 | | 3.93 | 0.137 | | 0.154 |
| L20 | | 16.40 | | | 0.645 | |
| L30 | | 28.90 | | | 1.137 | |
| ϕP | 3.75 | | 3.85 | 0.147 | | 0.151 |
| Q | 2.65 | | 2.95 | 0.104 | | 0.116 |



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