# TIGER ELECTRONIC CO.,LTD

**Product specification**

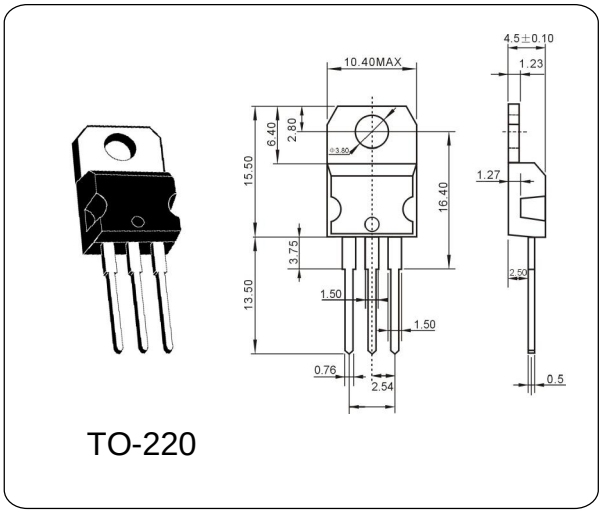
## 3-Terminal 1A Positive Voltage Regulator — LM7906

### GENERAL DESCRIPTION

The LM7906 series of three terminal positive regulators are available in the TO-220 package and with several fixed output voltages, making them useful in a wide range of applications. Each type employs internal current limiting, thermal shut down and safe operating area protection, making it essentially indestructible. If adequate heat sinking is provided, they can deliver over 1A output current. Although designed primarily as fixed voltage regulators, these devices can be used with external components to

### ABSOLUTE MAXIMUM RATINGS ( Ta = 25 °C)

| Parameter | Symbol | Typ | Unit |
|---|---|---|---|
| Input Voltage | $V_I$ | -35 | V |
| Output Voltage | $V_O$ | -6.0 | V |
| Peak Current | $I_{PK}$ | -2.2 | A |
| Operating Temperature Range | $T_{OPR}$ | 0~125 | °C |
| Storage Temperature Range | $T_{STG}$ | -65~150 | °C |




TO-220

### ELECTRICAL CHARACTERISTICS ( Ta = 25 °C)

(Refer to test circuit, Io = -500mA, Vi = -11V, Ci= 2.2uF, Co=1.0uF unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Output Voltage | $V_O$ | $V_I$ = -9V to -21V | -5.82 | -6.0 | -6.18 | V |
| Line Regulation (Note1) | Regline | $V_I$ = -8V to -25V | — | -10 | -120 | mV |
| | | $V_I$ = -9V to -12V | — | -5.0 | -60 | |
| Load Regulation (Note1) | Regload | $I_O$ = -5.0mA to-1.5A | — | -10 | -120 | mV |
| | | $I_O$ =-250mA to -750mA | — | -3 | -60 | |
| Quiescent Current | $I_Q$ | $T_J$ =+25 °C | — | -3 | -6 | mA |
| Quiescent Current Change | $\Delta I_Q$ | $I_O$ = -5mA to -1A | — | — | -0.5 | mA |
| | | $V_I$ = -9V to -25V | — | — | -1.3 | |
| Ripple Rejection | RR | f = 120Hz, $V_O$ = -8V to -18V | 54 | 60 | — | dB |
| Dropout Voltage | $V_{Drop}$ | $I_O$ = -1A, $T_J$ =+25 °C | — | -2 | — | V |
| Short Circuit Current | $I_{SC}$ | $V_I$ = -35V, $T_A$ =+25 °C | — | -300 | — | mA |
| Peak Current | $I_{PK}$ | $T_J$ =+25 °C | — | -2.2 | — | A |