## FEATURES

- Maximum Output current $\mathrm{I}_{\text {ом: }}$ : 0.8A
- Output voltage $\mathrm{V}_{\mathrm{O}}: 15 \mathrm{~V}$
- Continuous total dissipation

$$
\mathrm{P}_{\mathrm{D}}: 1.25 \mathrm{~W}\left(\mathrm{Ta}=25^{\circ} \mathrm{C}\right)
$$

- 1: IN
- 2: GND
- 3: OUT

1
TO252-2L

## Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
| :---: | :---: | :---: | :---: |
| 78 M 15 | TO252-2L | 78 M 15 | 2500 |

## Typical Application Circuit



HUAXUANYANG HXY
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## Absolute MaximumRatings

| Parameter | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Input Voltage | $\mathrm{V}_{\mathrm{i}}$ | 35 | V |
| Operating Junction Temperature Range | $\mathrm{T}_{\text {OPR }}$ | $0-+125$ | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\text {STG }}$ | $-65-+150$ | ${ }^{\circ} \mathrm{C}$ |

Electrical Characteristics

| Parameter | Symbol | Test conditions |  | Min | Typ | Max | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Output Voltage | Vo | $\mathrm{V}_{\mathrm{i}}=23 \mathrm{~V}$, $\mathrm{lo}=350 \mathrm{~mA}$ | $25^{\circ} \mathrm{C}$ | 14.4 | 15 | 15.6 | V |
|  |  | $\begin{aligned} & 17.5 \leq V_{i} \leq 30 \mathrm{~V}, \mathrm{Io}=5 \mathrm{~mA} \sim 350 \mathrm{~mA} \\ & \mathrm{Po} \leq 15 \mathrm{~W} \end{aligned}$ | ${ }^{0-125}{ }^{\circ} \mathrm{C}$ | 14.25 | 15 | 15.75 | V |
| Load Regulation | $\Delta \mathrm{Vo}$ | $1 \mathrm{l}=5 \mathrm{~mA} \sim 500 \mathrm{~mA}$ | $25^{\circ} \mathrm{C}$ |  |  | 300 | mV |
|  |  | $1 \mathrm{l}=5 \mathrm{~mA} \sim 200 \mathrm{~mA}$ | $25^{\circ} \mathrm{C}$ |  |  | 150 | mV |
| Line Regulation | $\Delta \mathrm{Vo}$ | $17.5 \mathrm{~V} \leq \mathrm{V}_{\mathrm{i}} \leq 30 \mathrm{~V}$, $\mathrm{lo}=200 \mathrm{~mA}$ | $25^{\circ} \mathrm{C}$ |  |  | 100 | mV |
|  |  | $20 \mathrm{~V} \leq \mathrm{V}_{\mathrm{i}} \leq 26 \mathrm{~V}$, $10=200 \mathrm{~mA}$ | $25^{\circ} \mathrm{C}$ |  |  | 50 | mV |
| Quiescent Current | Iq | $\mathrm{V}_{\mathrm{i}}=23 \mathrm{~V}$, $\mathrm{lo}=350 \mathrm{~mA}$ | $25^{\circ} \mathrm{C}$ |  |  | 6 | mA |
| Quiescent Current Change | $\Delta \mathrm{lq}$ | $17.5 \mathrm{~V} \leq \mathrm{V}_{\mathrm{i}} \leq 30 \mathrm{~V}$, $\mathrm{lo}=200 \mathrm{~mA}$ | $0-125^{\circ} \mathrm{C}$ |  |  | 0.8 | mA |
|  | $\Delta \mathrm{lq}$ | $\mathrm{V}_{\mathrm{i}}=23 \mathrm{~V}$, $\mathrm{lo}=5 \mathrm{~mA} \sim 350 \mathrm{~mA}$ | $0-125^{\circ} \mathrm{C}$ |  |  | 0.5 | mA |
| Output Noise Voltage | $\mathrm{V}_{\mathrm{N}}$ | $10 \mathrm{~Hz} \leq \mathrm{f} \leq 100 \mathrm{KHz}$ | $25^{\circ} \mathrm{C}$ |  | 90 |  | $\mu \mathrm{V}$ |
| Ripple Rejection | RR | $18.5 \leq \mathrm{V}_{\mathrm{i}} \leq 28.5 \mathrm{~V}, \mathrm{f}=120 \mathrm{~Hz}, \mathrm{lo}=300 \mathrm{~mA}$ | 0-125 ${ }^{\circ} \mathrm{C}$ | 54 |  |  | dB |
| Dropout Voltage | Vd |  | $25^{\circ} \mathrm{C}$ |  | 2 |  | V |

## Typical Characteristics




Quiescent Current vs Input Voltage





## TO252-2L Package Information



| Symbol | Dimensions In Millimeters |  | Dimensions In Inches |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Min. | Max. | Min. | Max. |
| A | 2.200 | 2.400 | 0.087 | 0.094 |
| A1 | 0.000 | 0.127 | 0.000 | 0.005 |
| b | 0.660 | 0.860 | 0.026 | 0.034 |
| c | 0.460 | 0.580 | 0.018 | 0.023 |
| D | 6.500 | 6.700 | 0.256 | 0.264 |
| D1 | 5.100 | 5.460 | 0.201 | 0.215 |
| D2 | 0.483 TYP. |  | 0.190 TYP. |  |
| E | 6.000 | 6.200 | 0.236 | 0.244 |
| e | 2.186 | 2.386 | 0.086 | 0.094 |
| L | 9.800 | 10.400 | 0.386 | 0.409 |
| L1 | 2.900 TYP. |  | 0.114 TYP. |  |
| L2 | 1.400 | 1.700 | 0.055 | 0.067 |
| L3 | 1.600 TYP. |  | 0.063 TYP. |  |
| L4 | 0.600 | 1.000 | 0.024 | 0.039 |
| Ф | 1.100 | 1.300 | 0.043 | 0.051 |
| $\theta$ | $0^{\circ}$ | $8^{\circ}$ | $0^{\circ}$ | $8^{\circ}$ |
| h | 0.000 | 0.300 | 0.000 | 0.012 |
| V | 5.350 TYP. |  | 0.211 TYP. |  |


#### Abstract

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