## TECHNICAL DATA

DATA SHEET 5494, Rev. -

## POSITIVE ADJUSTABLE 5.0 AMP REGULATOR

## FEATURES:

- ISOLATED HERMETIC PACKAGE (TO-258)
- SIMILAR to INDUSTRY TYPE LM138
- Add Suffix " S " for $\mathbf{S}$-100 Screening


## MAXIMUM RATINGS

| Parameter | Conditions |  | Typical | Limit |
| :--- | :--- | :--- | :---: | :---: |
| Input to Output Voltage <br> Differential |  |  | 40 | Vdc |
| Storage Temperature Range |  |  | -65 to +150 | ${ }^{\circ} \mathrm{C}$ |
| Power Dissipation $\left(\mathrm{P}_{\mathrm{D}}\right)$ |  |  | Internally <br> Limited | W |
| Maximum Thermal Resistance <br> Junction to Case $\left(\theta_{\mathrm{JC}}\right)$ |  | 3.0 | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |  |
| Operating Junction <br> Temperature Range ( $\left.\mathrm{Tj}_{\mathrm{j}}\right)$ |  |  | -55 to +150 | ${ }^{\circ} \mathrm{C}$ |

ELECTRICAL CHARACTERISTICS $-55^{\circ} \mathrm{C} \leq \mathrm{Ta} \leq 125^{\circ} \mathrm{C}$ unless otherwise specified

| Parameter | Conditions | Min | Typ. | Limit | Units |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Reference Voltage | $\begin{aligned} & 3.0 \mathrm{~V} \leq \mathrm{V}_{\text {IN }}-\mathrm{V}_{\text {OUT }} \leq 35 \mathrm{~V}, \\ & 10 \mathrm{~mA} \leq \mathrm{I}_{\text {OUT }} \leq 5.0 \mathrm{~A}, \\ & \mathrm{P} \leq 50 \mathrm{~W} \\ & \hline \end{aligned}$ | 1.19 |  | 1.29 | V |
| Line Regulation | $\begin{aligned} & \hline 3.0 \mathrm{~V} \leq \mathrm{V}_{\text {IN }}-\mathrm{V}_{\text {OUT }} \leq 35 \mathrm{~V}, \\ & \mathrm{l}_{\text {OUT }}=10 \mathrm{~mA} \\ & 3.0 \mathrm{~V} \leq \mathrm{V}_{\text {IN }}-\mathrm{V}_{\text {OUT }} \leq 35 \mathrm{~V}, \\ & \text { l OUT }=10 \mathrm{~mA}, \mathrm{Tj}=25^{\circ} \mathrm{C} \\ & \hline \end{aligned}$ |  |  | $\begin{aligned} & .04 \\ & .01 \end{aligned}$ | \%/V |
| Load Regulation | $\begin{aligned} & 10 \mathrm{~mA} \leq \mathrm{l}_{\text {out }} \leq 5.0 \mathrm{~A} \\ & 10 \mathrm{~mA} \leq \mathrm{I}_{\text {out }} \leq 5.0 \mathrm{~A}, \\ & \mathrm{~T}_{\mathrm{i}}=+25^{\circ} \mathrm{C} \\ & \hline \end{aligned}$ |  |  | $\begin{aligned} & 1.3 \\ & 1.0 \end{aligned}$ | $\begin{aligned} & \hline \% \\ & \% \end{aligned}$ |
| Adjust Pin Current |  |  |  | 100 | $\mu \mathrm{A}$ |
| Adjust Pin Current Change | $\begin{aligned} & 10 \mathrm{~mA} \leq \mathrm{I}_{\text {OUT }} \leq 5.0 \mathrm{~A} \\ & 3.0 \mathrm{~V} \leq \mathrm{V}_{\text {IN }}-\mathrm{V}_{\text {OUT }} \leq 35 \mathrm{~V} \\ & \hline \end{aligned}$ |  |  | 5 | $\mu \mathrm{A}$ |
| Minimum Load Current | $\mathrm{V}_{\text {IN }}-\mathrm{V}_{\text {OUT }}=35 \mathrm{~V}$ |  |  | 5.0 | mA |
| Current Limit | $\begin{aligned} & \hline \mathrm{V}_{\text {IN }}-\mathrm{V}_{\text {OUT }} \leq 10 \mathrm{~V} \\ & \mathrm{~V}_{\text {IN }}-\mathrm{V}_{\text {OUT }}=30 \mathrm{~V} \\ & \hline \end{aligned}$ | 5.0 |  | 1.0 | $\begin{aligned} & \text { A } \\ & \text { A } \end{aligned}$ |
| Ripple Rejection Ratio | $\begin{aligned} & \mathrm{V}_{\text {OUT }}=10 \mathrm{~V}, \mathrm{f}=120 \mathrm{~Hz}, \\ & \mathrm{C}_{\text {ADJ }}=10 \mu \mathrm{~F} \end{aligned}$ | 60 |  |  | dB |

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## MECHANICAL DIMENSIONS in inches \& mm

## TO-258



PINOUT TABLE

| TYPE | PIN 1 | PIN 2 | PIN 3 | TAB |
| :--- | :---: | :---: | :---: | :---: |
| TO - 258 5.0A <br> Adjustable Regulator | ADJUST | V OUT | V IN | ISOLATED |

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