SENSITRON SEMICONDUCTOR

TECHNICAL DATA DATA SHEET 4021, REV. A

LOW DROP NEGATIVE 5V 1.0 AMP REGULATOR

FEATURES:

- ISOLATED HERMETIC PACKAGE
- SIMILAR to INDUSTRY TYPE LM2990-5

MAXIMUM RATINGS

All ratings are at $T_A = 25^{\circ}C$ unless otherwise specified.

| | | 5 A | | | |
|---|------------------------|---------|-----------------------|-------|--|
| Parameter | Conditions | Typical | Limit | Units | |
| Input to Output Voltage Differential | - | - | -26.0 | Vdc | |
| Storage Temperature Range | - | - | -65 to +150 | °C | |
| Lead Temperature | Soldering, 10 seconds | - | +300 | °C | |
| Power Dissipation (P_D) | - | - | Internally Limited | W | |
| Maximum Thermal Resistance Junction to Case (θ_{JC}) | - | - | 3.5 | °C/W | |
| Maximum Junction Temperature (T _J) | - | - | -65 to +150 | °C | |
| Ambient Operating Temperature Range (T_A) | Recommended Conditions | - | -55 to +125 | °C | |

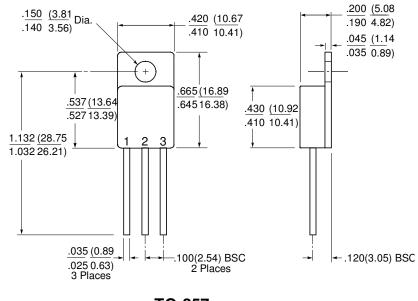
ELECTRICAL CHARACTERISTICS

| Parameter | Conditions | Min | Limit | Units |
|---|---|-----------|-------|-------|
| Output Voltage (Vo) | $V_{IN} = -10V, 5 \text{ mA} < I_{OUT} < 1.0A$ | -5.10 | -4.90 | V |
| | $T_A = +25^{\circ}C$ | | | |
| Line Regulation (V_{RLINE}) ΔV_{OUT} | $-6V \le V_{\text{IN}} \le 26V; I_{\text{OUT}} = 5 \text{ mA}$ | ±4 | ± 40 | mV |
| Load Regulation (V_{RLOAD}) ΔV_{OUT} | 50 mA \leq I _{OUT} \leq 1A, V _{IN} = -10V | ±1 | ± 40 | mV |
| Drop Out Voltage V _{DO} | $I_o = 0.1A$ | 0.1 | 0.3 | V |
| | I _o = 1.0A | 0.6 | 1.0 | |
| Quiescent Current ΔI_Q | 5 mA < I _{OUT} < 1.0A | 1 | 5 | mA |
| Current Limit I _{CL} | $V_{IN} = -10V, R_L = 1\Omega$ | 1.5 | - | A |
| | | 1.8 (typ) | | |
| Temperature Stability $\Delta V_{OUT} / \Delta t$ | $-55^{\circ}C \le T_{J} \le +125^{\circ}C$ | - | 1.5 | % |
| Ripple Rejection ($\Delta V_{IN} / \Delta V_{OUT}$) | V _{IN} = -10V, f = 1 KHz | 50 | - | dB |
| | $V_{ripple} = 1V_{rms.}I_{OUT} = 5 \text{ mA}$ | 58 (typ) | | |
| Output Noise Voltage | 10 Hz ~ 100 KHz, I _{OUT} = 5 mA | 250 (typ) | 750 | μV |
| Long Term Stability $(\Delta V_{OUT} / \Delta t)$ | T _A = 25°C, t = 1,000 | - | 2000 | ppm |

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MECHANICAL DIMENSIONS



TO-257

PINOUT TABLE

| TYPE | PIN 1 | PIN 2 | PIN 3 |
|--------------------------|--------|-----------------|-------|
| TO - 257, 1.0A Regulator | Common | V _{IN} | VOUT |

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