

TECHNICAL DATA
DATA SHEET 1071, REV. -

POSITIVE ADJUSTABLE 3.0 AMP REGULATOR

FEATURES:

- **LOW DROP OUT**
- **ISOLATED HERMETIC PACKAGE**
- **SIMILAR to INDUSTRY TYPE LT1085**

MAXIMUM RATINGS

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

Parameter	Conditions	Typical	Limit	Units
Input to Output Voltage Differential	-	-	35	Vdc
Storage Temperature Range	-	-	-65 to +150	$^\circ\text{C}$
Lead Temperature	Soldering, 10 seconds	-	+300	$^\circ\text{C}$
Power Dissipation (P_D)		-	Internally Limited	W
Maximum Thermal Resistance Junction to Case ($R_{\theta JC}$)	-	-	3.5	$^\circ\text{C/W}$
Junction Temperature (T_J)	-	-	+150	$^\circ\text{C}$
Ambient Operating Temperature Range (T_A)	Recommended Conditions	-	-55 to +125	$^\circ\text{C}$
Output Current I_{OUT}	Recommended Conditions	-	2.0	A
Input to Output Voltage Differential	-	-	25	V

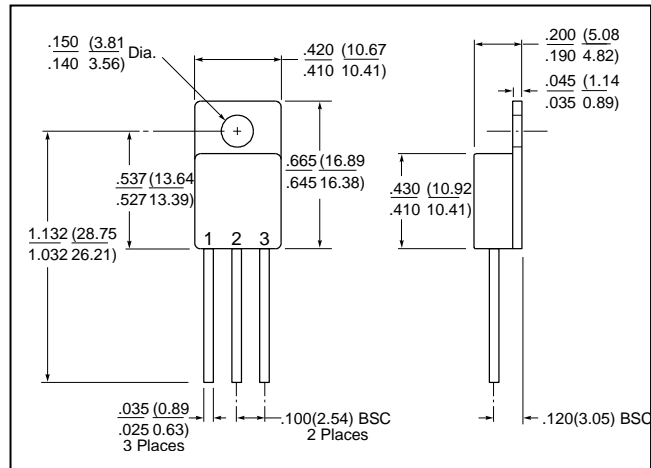
ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Min	Typ.	Limit	Units
Reference Voltage (V_{REF})	$I_{OUT} = 10\text{mA}$, $T_J = +25^\circ\text{C}$ $(V_{IN} - V_{OUT}) = 3.0\text{V}$, $10\text{mA} \leq I_{OUT} \leq I_{FULL\ LOAD}$ $1.5\text{V} \leq (V_{IN} - V_{OUT}) \leq 25\text{V}$	1.238	1.250	1.262	V
Line Regulation (V_{RLINE})	$\frac{\Delta V_{OUT}}{\Delta V_{IN}}$ $I_{LOAD} = 10\text{mA}$, $1.5\text{V} \leq (V_{IN} - V_{OUT}) \leq 15\text{V}$ $T_J = 25^\circ\text{C}$ $15\text{V} \leq V_{IN} - V_{OUT} \leq 35\text{V}$	-	0.05 0.035	0.2 0.2	% %
Load Regulation (V_{RLOAD})	$\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$ $(V_{IN} - V_{OUT}) = 3.0\text{V}$ $10\text{mA} \leq I_{OUT} \leq I_{FULL\ LOAD}$ $T_J = 25^\circ\text{C}$ Notes 1, 2, 3	-	0.5 0.8	0.8 1.0	% %
Adjust Pin Current I_{ADJ}	$T_J = +25^\circ\text{C}$	-	55	-	μA
Adjust Pin Current Change ΔI_{ADJ}	$10\text{mA} \leq I_{OUT} \leq I_{FULL\ LOAD}$ $1.5\text{V} \leq (V_{IN} - V_{OUT}) \leq 25\text{V}$	-	0.2	5.0	μA
Minimum Load Current I_{MIN}	$(V_{IN} - V_{OUT}) = 25\text{V}$	-	5.0	10	mA
Current Limit I_{CL}	$V_{IN} - V_{OUT} \leq 5.0\text{V}$ $V_{IN} - V_{OUT} \leq 25\text{V}$	-	3.2 0.2	-	A A
Temperature Stability $\Delta V_{OUT} / \Delta t$	$-55^\circ\text{C} \leq T_J \leq +150^\circ\text{C}$	-	0.5	-	%
Ripple Rejection	$f = 120\text{Hz}$, $C_{ADJ} = 25\mu\text{F}$ (tantalum) $I_{OUT} = I_{FULL\ LOAD}$, $(V_{IN} - V_{OUT}) = 3.0\text{V}$	60	75	-	dB
Dropout Voltage V_{DO}	$I_{OUT} = I_{FULL\ LOAD}$, $\Delta V_{REF} = 1\%$	-	1.3	1.5	V
Thermal Regulation	30 ms pulse, $T_A = 25^\circ$	-	0.004	0.02	%/W
Long Term Stability	$T_A = +125^\circ\text{C}$, $t = 1,000\text{hrs}$	-	0.3	1.0	%

Parameters in boldface denotes the specification applies over the full operating temperature range.

SENSITRON
DATA SHEET 1071
REVISION -

MECHANICAL DIMENSIONS: in Inches / mm



TO-257

PINOUT TABLE

TYPE	PIN 1	PIN 2	PIN 3
TO-257, 3.0A Regulator	ADJUST	V_{OUT}	V_{IN}

*Case is electrically isolated.