

TECHNICAL DATA
DATA SHEET 840, REV. E

**POSITIVE ADJUSTABLE
1.5 AMP REGULATOR**

FEATURES:

- Isolated hermetic package (TO-257)
- Hot solder dipped
- Similar to industry type LM117HV
- Add Suffix "S" for S-100 Screening per MIL-PRF-38535
- Add Suffix "SA" for S-100 Screening per MIL-PRF-38535 and Group A per Method 5005 of MIL-STD-883

ABSOLUTE MAXIMUM RATINGS

Parameter	Conditions	MIN	MAX	Units
Output Current (I_{OUT})	-	-	1.5	A
Input to Output Voltage Differential	-	-0.3	60	V dc
Storage Temperature Range	-	-	-65 to +150	°C
Junction Temperature	-	-	+150	°C
Power Dissipation (P_D)	-	-	Internally Limited	
Maximum Thermal Resistance Junction to Case (θ_{JC})	-	-	4.2	°C/W
Ambient Operating Temperature Range (T_A)	Recommended Conditions	-	-55 to +125	°C

Note: Lead soldering temperature shall comply with MIL-STD-883 Test Method 2036.1 requirements.

ELECTRICAL CHARACTERISTICS

Unless otherwise specified, $T_J = 25^\circ\text{C}$, $V_{IN} - V_{OUT} = 5\text{V}$, $I_{OUT} = 10\text{mA}$

Parameter	Conditions	Min	Typ.	Limit	Units
Reference Voltage	$3.3\text{V} \leq V_{IN} - V_{OUT} \leq 40\text{V}$, $10\text{mA} \leq I_{OUT} \leq 1.5\text{A}$, $T_J = -55^\circ\text{C}$ to 125°C	1.2	1.25	1.3	V
Line Regulation	$3.3\text{V} \leq V_{IN} - V_{OUT} \leq 40\text{V}$, $I_{OUT} = 10\text{mA}$, $T_J = -55^\circ\text{C}$ to 125°C	-8.64	-	8.64	mV
Load Regulation	$10\text{mA} \leq I_{OUT} \leq 1.5\text{A}$, $T_J = -55^\circ\text{C}$ to 125°C	-20	-	20	mV
Adjust Pin Current	$T_J = -55^\circ\text{C}$ to 125°C	-	50	100	μA
Adjust Pin Current Change	$10\text{mA} \leq I_{OUT} \leq 1.5\text{A}$, $3.3\text{V} \leq V_{IN} - V_{OUT} \leq 40\text{V}$, $T_J = -55^\circ\text{C}$ to 125°C	-5.0	-	5.0	μA
Minimum Load Current	$V_{IN} - V_{OUT} = 40\text{V}$, $T_J = -55^\circ\text{C}$ to 125°C	-	-	5.0	mA
Current Limit	$V_{IN} - V_{OUT} = 3\text{V}$ $V_{IN} - V_{OUT} = 60\text{V}$	1.5 0.0	- -	3.0 0.4	A A
Temperature Stability	$T_J = -55^\circ\text{C}$ to 125°C	-	1.0	-	%
Ripple Rejection Ratio	$V_{OUT} = 10\text{V}$, $f = 120\text{Hz}$, $C_{ADJ} = 0\mu\text{F}$ $V_{OUT} = 10\text{V}$, $f = 120\text{Hz}$, $C_{ADJ} = 10\mu\text{F}$	-	65 80	-	dB dB
Thermal Regulation	20 ms pulse	-	0.03	0.10	%/W
Long Term Stability ¹	$T_J = +125^\circ\text{C}$, $t = 1,000\text{hrs}$	-	0.3	1.0	%

¹Guaranteed but not tested

