

TECHNICAL DATA  
DATA SHEET 4017, REV. C

**POSITIVE ADJUSTABLE  
1.5 AMP REGULATOR**

**FEATURES:**

- Isolated hermetic package (TO-257)
- Hot solder dipped
- Similar to industry type LM117
- 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 | 40                 | 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 ( $\theta_{JC}$ ) | -                      | -    | 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                | $3.0\text{V} \leq V_{IN} - V_{OUT} \leq 40\text{V}$ ,<br>$10\text{mA} \leq I_{OUT} \leq 1.5\text{A}$ ,<br>$T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$ | 1.2        | 1.25     | 1.3      | V             |
| Line Regulation                  | $3.0\text{V} \leq V_{IN} - V_{OUT} \leq 40\text{V}$ ,<br>$I_{OUT} = 10\text{mA}$ ,<br>$T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$                     | -          | 0.01     | 0.02     | %/V           |
| Load Regulation                  | $10\text{mA} \leq I_{OUT} \leq 1.5\text{A}$ ,<br>$T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$  | -          | 0.3      | 1.0      | %             |
| Adjust Pin Current               | $T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$   | -          | 50       | 100      | $\mu\text{A}$ |
| Adjust Pin Current Change        | $10\text{mA} \leq I_{OUT} \leq 1.5\text{A}$ ,<br>$3.0\text{V} \leq V_{IN} - V_{OUT} \leq 40\text{V}$ ,<br>$T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$ | -5.0       | -        | 5.0      | $\mu\text{A}$ |
| Minimum Load Current             | $V_{IN} - V_{OUT} = 40\text{V}$ ,<br>$T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$  | -          | -        | 5.0      | mA            |
| Current Limit                    | $V_{IN} - V_{OUT} \leq 15\text{V}$<br>$V_{IN} - V_{OUT} = 40\text{V}$  | 1.5<br>0.3 | -<br>-   | 3.4<br>- | A<br>A        |
| Temperature Stability            | $T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$   | -          | 1.0      | -        | %             |
| Ripple Rejection Ratio           | $V_{OUT} = 10\text{V}$ , $f = 120\text{Hz}$ ,<br>$C_{ADJ} = 0\mu\text{F}$<br>$V_{OUT} = 10\text{V}$ , $f = 120\text{Hz}$ ,<br>$C_{ADJ} = 10\mu\text{F}$    | -          | 65<br>80 | -        | dB<br>dB      |
| Thermal Regulation               | 20 ms pulse  | -          | 0.03     | 0.07     | %/W           |
| Long Term Stability <sup>1</sup> | $T_J = +125^\circ\text{C}$ , $t = 1,000\text{hrs}$   | -          | 0.3      | 1.0      | %             |

<sup>1</sup>Guaranteed but not tested

