


The junction temperature range for the LT[®]1105I is -40°C to 125°C . The specifications for the LT1105I are as stated on the data sheet, with the following exceptions:

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNITS |
|--------------------|---|--|----------------|-----|------|-----------------|
| I_{START} | Start-Up Current | $V_{\text{IN}} < V_{\text{IN}}$ Start Threshold | | | 450 | μA |
| V_{REF} | V_{REF} Line Regulation | $10\text{V} < V_{\text{IN}} < 30\text{V}$ | | | 0.1 | %/V |
| | V_{REF} Short-Circuit Current | | 20 | | 120 | mA |
| | 15V Short-Circuit Current | | 25 | | 140 | mA |
| DC | Preset Max Switch Duty Cycle | $\text{FB} = 4\text{V}$, $V_{\text{C}} = \text{Open}$, $f_{\text{OSC}} = 40\text{kHz}$, $I_{\text{SW}} = 25\text{mA}$ | 55 | | 75 | % |
| | OVLO Threshold | Overvoltage Lockout Threshold at Which Switching Is Inhibited | 2.2 | | 2.8 | V |
| | FB Input Bias Current | $\text{FB} = V_{\text{FB}}$ (Note 2) | 4 | | 22 | μA |
| | Change in FB Input Bias Current with Change in V_{C} | $\text{FB} = V_{\text{FB}}$, $V_{\text{C}} = 1\text{V}$ to 4V (Note 2) | 6 | | 15 | $\mu\text{A/V}$ |
| | FB Threshold Line Regulation | $10\text{V} < V_{\text{IN}} < 30\text{V}$ | | | 0.06 | %/V |
| g_{m} | Error Amp Transconductance | $\Delta I (V_{\text{C}}) = \pm 50\mu\text{A}$ | 5k | | 24k | μmho |
| A_{V} | Error Amp Voltage Gain | $1\text{V} < V_{\text{C}} < 3\text{V}$ | 450 | | | V/V |
| | Shutdown Threshold Voltage | | 50 | | 300 | mV |
| | Soft Start Charging Current | $\text{SS} = 0\text{V}$ | 20 | | 75 | μA |
| | Switch Output High Level | $I_{\text{SW}} = 200\text{mA}$, $V_{\text{GATE}} = 15\text{V}$ $I_{\text{SW}} = 750\text{mA}$, $V_{\text{GATE}} = 15\text{V}$ | 12.75 12.25 | | | V V |

Note 2: FB input bias current changes as a function of the V_{C} pin voltage. Rate of change of FB input bias current is $11\mu\text{A/V}$ of change on V_{C} . By including a resistor in series with the FB pin, load regulation can be set to zero.

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