

Electrical Specifications (continued)

Parameter	Device	Symbol	Min	Typ	Max	Unit
Output Voltage Set-point	All	$V_{O, set}$	-2		+2	% $V_{O, set}$
Output Voltage (Over all operating input voltage, resistive load, and temperature conditions until end of life)	All	$V_{O, set}$	-2.5	—	+2.5	% $V_{O, set}$
Adjustment Range (elected by an external resistor) (Some output voltages may not be possible depending on the input voltage – see Feature Descriptions Section)	All	$V_O$	3		18	Vdc
Output Regulation						
Line ( $V_{IN}=V_{IN, min}$ to $V_{IN, max}$ )	All			—	0.4	% $V_{O, set}$
Load ( $I_O=I_{O, min}$ to $I_{O, max}$ )	All			—	0.4	% $V_{O, set}$
Temperature ( $T_{ref}=T_{A, min}$ to $T_{A, max}$ )	All			—	0.4	% $V_{O, set}$
Remote Sense Range	All				0.5	Vdc
Output Ripple and Noise on nominal output ( $V_{IN}=V_{IN, nom}$ and $I_O=I_{O, min}$ to $I_{O, max}$ $C_o = 0.1\mu F // 10\mu F$ ceramic capacitors) $V_{out}=3.3V$ , $V_{in}=28V$						
Peak-to-Peak (5Hz to 20MHz bandwidth)	All			38		$mV_{pk-pk}$
RMS (5Hz to 20MHz bandwidth)	All			12		$mV_{rms}$
$V_{out}=18V$ , $V_{in}=28V$						
Peak-to-Peak (5Hz to 20MHz bandwidth)	All			116		$mV_{pk-pk}$
RMS (5Hz to 20MHz bandwidth)	All			38		$mV_{rms}$
External Capacitance <sup>1</sup>						
Without the Tunable Loop™						
ESR $\geq 1 m\Omega$	All	$C_{O, max}$	0	—	47	$\mu F$
ESR $\geq 10 m\Omega$	All	$C_{O, max}$	0	—	100	$\mu F$
With the Tunable Loop™						
ESR $\geq 0.15 m\Omega$	All	$C_{O, max}$	0	—	100	$\mu F$
ESR $\geq 10 m\Omega$	All	$C_{O, max}$	0	—	2000*	$\mu F$
Output Current $V_O=3V$ $V_O=5V$ $V_O=12V$ $V_O=18V$	All	$I_O$	0 0 0 0		3 2.5 2 1.5	A <sub>dc</sub>
Output Current Limit Inception (Hiccup Mode )	All	$I_{O, lim}$		200		% $I_{O, max}$
Output Short-Circuit Current ( $V_O \leq 250mV$ ) ( Hiccup Mode )	All	$I_{O, s/c}$		1		A <sub>rms</sub>
Efficiency ( $I_O=I_{O, max}$ , $V_O=V_{O, set}$ ) $V_{IN}=12Vdc$ , $T_A=25^\circ C$ $V_{IN}=12Vdc$ , $T_A=25^\circ C$ $V_{IN}=28Vdc$ , $T_A=25^\circ C$ $V_{IN}=28Vdc$ , $T_A=25^\circ C$	$V_{O, set} = 3.3Vdc$ $V_{O, set} = 5Vdc$ $V_{O, set} = 12Vdc$ $V_{O, set} = 18Vdc$	$\eta$ $\eta$ $\eta$ $\eta$		93.2 95.5 96.0 97.0		%
Switching Frequency	All	fsw	—	300	—	kHz

<sup>1</sup>Depending on Input and Output Voltage, external capacitors require using the new Tunable Loop™ feature to ensure that the module is stable as well as getting the best transient response. See the Tunable Loop™ section for details.

\* Larger values may be possible at specific output voltages. Please consult your Lineage Technical representative for additional details.

### General Specifications

Parameter	Min	Typ	Max	Unit
Calculated MTBF ( $I_o=0.8I_{o,max}$ , $T_A=40^\circ\text{C}$ ) Telcordia Issue 2 Method 1 Case 3		18,014,158		Hours
Weight	—	3.5 (0.123)	—	g (oz.)