

4. OUTPUT SPECIFICATIONS

PARAMETER	DESCRIPTION	MIN	TYP	MAX	UNIT
Output Voltage Set Point	with 0.1% tolerance for external resistor used to set output voltage	-1.0	-	+1.0	%Vo,set
Output Voltage	Over all operating input voltage, resistive load, and temperature conditions until end of life	-3.0	-	+3.0	%Vo,set
Adjustment Range	1. selected by an external resistor 2. Some output voltages may not be possible depending on the input voltage – see Feature Descriptions Section	0.6	-	2.0	V
Remote Sense Range		-	-	0.5	V
Line Regulation	VIN=VIN, min to VIN, max	-	-	6	mV
Load Regulation	IO=IO, min to IO, max	-	-	10	mV
Temperature Regulation	Tref=TA, min to TA, max	-	0.4	-	%Vo,set
Output Current	In either sink or source mode	0	-	40	mV
Output Ripple and Noise (pk-pk)	5Hz to 20MHz BW, VIN=VIN, nom and IO=IO, min to IO, max Co = 0.1µF // 22 µF ceramic capacitors)	-	50	100	mV
Output Ripple and Noise (rms)		-	20	38	mV
Output Short-Circuit Current	Vo≤250mV, Hiccup Mode	-	2.1	-	Arms
Turn-On Delay and Rise Times (VIN=VIN, nom, IO=IO, max, VO to within ±1% of steady state.)	Case 1: On/Off input is enabled and then input power is applied (delay from instant at which VIN = VIN, min until Vo = 10% of Vo, set)	1.0	1.1	1.7	ms
	Case 2: Input power is applied for at least one second and then the On/Off input is enabled (delay from instant at which Von/Off is enabled until Vo = 10% of Vo, set)	600	700	1800	µs
Output voltage overshoot	VIn = VIn,min to VIn, max, IO = IO, min to IO, max, TA=25°C. With or without maximum external capacitance	-	1.5	3.0	%Vo, set.
Output voltage Rise time	Time for Vo to rise from 10% of Vo, set to 90% of Vo, set.	1.2	1.5	2.2	msec
Output Capacitance**	ESR≥ 1 mΩ Without the Tunable Loop™	6x47	-	6x47	
	ESR≥0.15 mΩ With the Tunable Loop™	6x47	-	7000	µF
	ESR≥ 10 mΩ With the Tunable Loop™	6x47	-	8500	
Output Current Limit Inception	1. Hiccup Mode 2. Current limit does not operate in sink mode	-	150	-	% Io,max

** External capacitors may 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.

NOTE: All specifications are typical at nominal input, full load at 25°C unless noted.



Asia-Pacific
+86 755 298 85888

Europe, Middle East
+353 61 225 977

North America
+1 408 785 5200

5. GENERAL SPECIFICATIONS

PARAMETER	DESCRIPTION	MIN	TYP	MAX	UNIT	
Efficiency	$V_{in} = 12 \text{ VDC}$, $T_A = 25^\circ\text{C}$ $I_o = I_o, \text{max}$, $V_o = V_o, \text{set}$	$V_o = 0.6\text{V}$	78.0	81.3	-	%
		$V_o = 1.2\text{V}$	84.0	88.5	-	
		$V_o = 1.8\text{V}$	85.25	91.5	-	
Switching Frequency		380	400	420	kHz	
Synchronization Frequency Range		350	-	480	kHz	
High-Level Input Voltage		2.0	-	-	V	
Low-Level Input Voltage		-	-	0.4	V	
Input Current, SYNC				100	nA	
Minimum Pulse Width, SYNC		100	-	-	ns	
Maximum SYNC rise time		100	-	-	ns	
Over Temperature Protection	See Thermal Considerations section	123	130	137	$^\circ\text{C}$	
Tracking Accuracy	Power-Up: 0.5V/ms	-	-	100	mV	
	Power-Down: 0.5V/ms	-	-	100		
PGOOD (Power Good)	Overvoltage threshold for PGOOD ON	103	108	113	$\%V_o, \text{set}$	
	Overvoltage threshold for PGOOD OFF	105	110	115	$\%V_o, \text{set}$	
	Undervoltage threshold for PGOOD ON	87	92	97	$\%V_o, \text{set}$	
	Undervoltage threshold for PGOOD OFF	85	90	95	$\%V_o, \text{set}$	
	Pulldown resistance of PGOOD pin	-	-	50	Ω	
	Sink current capability into PGOOD pin	-	-	5	mA	
Weight		-	11.7	-	g	
Input Undervoltage Lockout	Turn-on Threshold	4.144	4.25	4.407	V	
	Turn-off Threshold	3.947	3.98	4.163		
	Hysteresis	0.25	0.3	0.35		
MTBF*	Calculated MTBF ($I_o = 0.8I_o, \text{max}$, $T_A = 40^\circ\text{C}$) Telecordia Issue 2 Method 1 Case 3		6,498,438		hours	
Dimensions (L x W x H)			1.30 x 0.53 x 0.429		in	
			33.02 x 13.46 x 10.9		mm	

NOTE: Unless otherwise indicated, specifications apply over all operating input voltage, resistive load, and temperature condition