

Electrical Specifications (continued)

Parameter	Device	Symbol	Min	Typ	Max	Unit
Output Voltage Set-point ( $V_{IN}=V_{IN,nom}$ , $I_O=I_{O,nom}$ , $T_{ref}=25^{\circ}C$ )	All	$V_{O, set}$	-1.5	—	+1.5	% $V_{O, set}$
Output Voltage (Over all operating input voltage, resistive load, and temperature conditions until end of life)	All	$V_{O, set}$	-3.0	—	+3.0	% $V_{O, set}$
Adjustment Range Selected by an external resistor	All		0.8		2.0	Vdc
Output Regulation Line ( $V_{IN}=V_{IN, min}$ to $V_{IN, max}$ )	All		—	—	0.1	% $V_{O, set}$
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		—	0.5	1	% $V_{O, set}$
Output Ripple and Noise on nominal output ( $V_{IN}=V_{IN, nom}$ and $I_O=I_{O, min}$ to $I_{O, max}$ $C_{OUT} = 0.1\mu F // 10\mu F$ ceramic capacitors) Peak-to-Peak (5Hz to 20MHz bandwidth)	$V_O \leq 2.0V$		—		50	mV <sub>pk-pk</sub>
External Capacitance ESR $\geq 1\ m\Omega$	All	$C_{O, max}$	0	—	2,000	$\mu F$
ESR $\geq 10\ m\Omega$	All	$C_{O, max}$	0	—	10,000	$\mu F$
Output Current	$V_O \leq 3.63V$	$I_O$	0		30	Adc
Output Current Limit Inception (Hiccup Mode)	All	$I_{O, lim}$	104	140	160	% $I_{Omax}$
Output Short-Circuit Current ( $V_O \leq 250mV$ ) (Hiccup Mode)	All	$I_{O, s/c}$	—	3.5	—	Adc
Efficiency $V_{IN}=V_{IN, nom}$ , $T_A=25^{\circ}C$	$V_{O, set} = 0.8dc$	$\eta$		83.5		%
$I_O=I_{O, max}$ , $V_O = V_{O, set}$	$V_{O, set} = 1.25Vdc$	$\eta$		87.9		%
	$V_{O, set} = 1.8Vdc$	$\eta$		91.6		%
Switching Frequency, Fixed	All	$f_{sw}$	—	270	—	kHz
Dynamic Load Response ( $dI_O/dt=5A/\mu s$ ; $V_{IN}=V_{IN, nom}$ ; $T_A=25^{\circ}C$ ) Load Change from $I_O= 50\%$ to $100\%$ of $I_{O, max}$ ; No external output capacitors	All	$V_{pk}$	—	380	—	mV
Peak Deviation	All	$t_s$	—	50	—	$\mu s$
Settling Time ( $V_O < 10\%$ peak deviation)						
( $dI_O/dt=5A/\mu s$ ; $V_{IN}=V_{IN, nom}$ ; $T_A=25^{\circ}C$ ) Load Change from $I_O= 100\%$ to $50\%$ of $I_{O, max}$ ; No external output capacitors	All	$V_{pk}$	—	380	—	mV
Peak Deviation	All	$t_s$	—	50	—	$\mu s$
Settling Time ( $V_O < 10\%$ peak deviation)						

**Electrical Specifications** (continued)

Parameter	Device	Symbol	Min	Typ	Max	Unit
Dynamic Load Response						
(dI <sub>O</sub> /dt=5A/μs; V <sub>IN</sub> =V <sub>IN, nom</sub> ; T <sub>A</sub> =25°C)						
Load Change from I <sub>O</sub> = 50% to 100% of I <sub>O,max</sub> ; 2x150 μF polymer capacitor						
Peak Deviation	All	V <sub>pk</sub>	—	350	—	mV
Settling Time (V <sub>O</sub> <10% peak deviation)	All	t <sub>s</sub>	—	40	—	μs
(dI <sub>O</sub> /dt=5A/μs; V <sub>IN</sub> =V <sub>IN, nom</sub> ; T <sub>A</sub> =25°C)						
Load Change from I <sub>O</sub> = 100% to 50% of I <sub>O,max</sub> ; 2x150 μF polymer capacitor						
Peak Deviation	All	V <sub>pk</sub>	—	250	—	mV
Settling Time (V <sub>O</sub> <10% peak deviation)	All	t <sub>s</sub>	—	60	—	μs

**General Specifications**

Parameter	Min	Typ	Max	Unit
Calculated MTBF (V <sub>O</sub> = 1.2Vdc, I <sub>O</sub> = 0.8I <sub>O, max</sub> , T <sub>A</sub> =40°C) Per Telecordia Method		3,443,380		Hours
Weight	—	6.2 (0.22)	—	g (oz.)