

Electrical Specifications (continued)

Parameter	Device	Symbol	Min	Typ	Max	Unit
Output Voltage Set-point ( $V_{IN}=V_{IN, min}$ , $I_O=I_{O, max}$ , $T_A=25^\circ C$ )	All	$V_{O, set}$	-2.0	$V_{O, set}$	+2.0	% $V_{O, set}$
Output Voltage (Over all operating input voltage, resistive load, and temperature conditions until end of life)	All	$V_{O, set}$	-3%	—	+3%	% $V_{O, set}$
Adjustment Range Selected by an external resistor	All	$V_O$	0.7525		3.63	Vdc
Output Regulation Line ( $V_{IN}=V_{IN, min}$ to $V_{IN, max}$ ) Load ( $I_O=I_{O, min}$ to $I_{O, max}$ ) Temperature ( $T_{ref}=T_{A, min}$ to $T_{A, max}$ )	All All All		— — —	0.3 0.4 0.4	— — —	% $V_{O, set}$ % $V_{O, set}$ % $V_{O, set}$
Output Ripple and Noise on nominal output ( $V_{IN}=V_{IN, nom}$ and $I_O=I_{O, min}$ to $I_{O, max}$ $C_{out} = 1\mu F$ ceramic//10 $\mu F$ tantalum capacitors)						
RMS (5Hz to 20MHz bandwidth)	All		—	8	15	mV <sub>rms</sub>
Peak-to-Peak (5Hz to 20MHz bandwidth)	All		—	25	50	mV <sub>pk-pk</sub>
External Capacitance ESR $\geq 1$ m $\Omega$ ESR $\geq 10$ m $\Omega$	All All	$C_{O, max}$ $C_{O, max}$	— —	— —	1000 5000	$\mu F$ $\mu F$
Output Current	All	$I_o$	0		10	Adc
Output Current Limit Inception (Hiccup Mode ) ( $V_O = 90\%$ of $V_{O, set}$ )	All	$I_{o, lim}$	—	220	—	% $I_o$
Output Short-Circuit Current ( $V_O \leq 250mV$ ) ( Hiccup Mode )	All	$I_{o, s/c}$	—	2	—	Adc
Efficiency $V_{IN} = V_{IN, nom}$ , $T_A = 25^\circ C$ $I_O = I_{O, max}$ , $V_O = V_{O, set}$	$V_{O, set} = 0.75Vdc$ $V_{O, set} = 1.2Vdc$ $V_{O, set} = 1.5Vdc$ $V_{O, set} = 1.8Vdc$ $V_{O, set} = 2.5Vdc$ $V_{O, set} = 3.3Vdc$	$\eta$ $\eta$ $\eta$ $\eta$ $\eta$ $\eta$		82.5 88.0 89.5 91.0 93.0 95.0		% % % % % %
Switching Frequency	All	$f_{sw}$	—	300	—	kHz
Dynamic Load Response ( $dI_O/dt=2.5A/\mu s$ ; $V_{IN} = V_{IN, nom}$ ; $T_A=25^\circ C$ ) Load Change from $I_O = 50\%$ to $100\%$ of $I_{O, max}$ ; $1\mu F$ ceramic// $10\mu F$ tantalum Peak Deviation Settling Time ( $V_O < 10\%$ peak deviation)	All All	$V_{pk}$ $t_s$	— —	200 25	— —	mV $\mu s$
( $dI_O/dt=2.5A/\mu s$ ; $V_{IN} = V_{IN, nom}$ ; $T_A=25^\circ C$ ) Load Change from $I_O = 100\%$ to $50\%$ of $I_{O, max}$ : $1\mu F$ ceramic// $10\mu F$ tantalum Peak Deviation Settling Time ( $V_O < 10\%$ peak deviation)	All	$V_{pk}$ $t_s$	— —	200 25	— —	mV $\mu s$

### Electrical Specifications (continued)

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Dynamic Load Response ( $dI_o/dt=2.5A/\mu s$ ; $V_{IN} = V_{IN, nom}$ ; $T_A=25^\circ C$ ) Load Change from $I_o= 50\%$ to $100\%$ of $I_{o,max}$ ; $C_o = 2 \times 150 \mu F$ polymer capacitors Peak Deviation	All	$V_{pk}$	—	100	—	mV
Settling Time ( $V_o < 10\%$ peak deviation)	All	$t_s$	—	100	—	$\mu s$
( $dI_o/dt=2.5A/\mu s$ ; $V_{IN} = V_{IN, nom}$ ; $T_A=25^\circ C$ ) Load Change from $I_o= 100\%$ to $50\%$ of $I_{o,max}$ ; $C_o = 2 \times 150 \mu F$ polymer capacitors Peak Deviation	All	$V_{pk}$	—	100	—	mV
Settling Time ( $V_o < 10\%$ peak deviation)	All	$t_s$	—	100	—	$\mu s$

### General Specifications

Parameter	Min	Typ	Max	Unit
Calculated MTBF ( $I_o=I_{o, max}$ , $T_A=25^\circ C$ ) Telecordia SR-332 Issue 1: Method 1 Case 3		15,726,000		Hours
Weight	—	5.6 (0.2)	—	g (oz.)