ELECTRICAL CHARACTERISTICS

The ● denotes the specifications which apply over the full operating temperature range, otherwise specifications are at T_A = 25°C. RUN = 3V unless otherwise noted (Note 3).

PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
Buck Regulator						
Minimum V_{IN0} Input Voltage		●			6	V
V_{OUT0} Output DC Voltage	0A < I_{OUT} ≤ 3A, R_{FB0} Open 0A < I_{OUT} ≤ 3A; R_{FB0} = 536Ω			1.2 24		V V
V_{OUT0} Output DC Current	6V < V_{IN0} < 36V, V_{OUT} = 3.3V		0		5	A
Quiescent Current Into V_{IN0}	RUN = 0V No Load			0.1 26	1 40	µA mA
V_{OUT0} Line Regulation	6V < V_{IN0} < 36V, I_{OUT} = 1A			±0.5		%
V_{OUT0} Load Regulation	V_{IN0} = 24V, 0A < I_{OUT} < 5A			±1.2		%
V_{OUT0} RMS Voltage Ripple	V_{IN0} = 24V, I_{OUT} = 5A			10		mV
Switching Frequency	R_T = 39.2k R_T = 200k			1000 200		kHz kHz
Voltage at FB0 Pin		●	1.15	1.19	1.21	V
Internal FBO Resistor				10		kΩ
RUN Pin Current	RUN = 1.45V			5.5		µA
RUN Threshold Voltage (Falling)			1.49		1.61	V
RUN Threshold Voltage (Rising)			1.63		1.75	V
ILIM Control Range			0		1.5	V
ILIM Pin Current				100		nA
ILIM Current Limit Accuracy	ILIM = 1.5V ILIM = 0.75V		5.1 2.5		6.4 3.4	A A
V_{REF} Voltage	0.5mA Load		1.9	2	2.1	V
SS Pin Current				11		µA
SYNC Input Low Threshold	f_{SYNC} = 500kHz		0.8			V
SYNC Input High Threshold	f_{SYNC} = 500kHz				1.2	V
SYNC Input Current	SYNC = 0V SYNC = 2V		–0.1		 0.1	µA µA
LDO Array						
SET1-5 Pin Current	BIAS123 = BIAS45 = 2V, SETx = 0V, I_{OUT1-5} = 1mA	 ●	9.85 9.80	10 10	10.15 10.20	µA µA
V_{OUTx} – SETx Offset Voltage	BIAS123 = BIAS45 = 2V, SETx = 0V, I_{OUT1-5} = 1mA	 ●	–4 –6.5		4 6.5	mV mV
Line Regulation for SET Current	1V < V_{OUT0} = V_{IN45} < 22V, I_{OUTx} = 1mA (Note 4)	●			11	nA
Line Regulation for V_{OUT1-5}	1V < V_{OUT0} = V_{IN45} < 22V, I_{OUTx} = 1mA (Note 4)			0.25		mV
Load Regulation for SETx Current	I_{OUT1-5} = 1mA to 1.1A				25	nA
Load Regulation for V_{OUT1-5}	I_{OUT1-5} = 1mA to 1.1A	 ●			34 52	mV mV
Minimum Load Current for V_{OUT1-5} (Note 4)	V_{OUT0} = V_{IN45} = BIAS123 = BIAS45 = 10V V_{OUT0} = V_{IN45} = BIAS123 = BIAS45 = 22V	● ●			500 1	µA mA
BIAS123, BIAS45 Dropout Voltage	I_{OUT1-5} = 100mA I_{OUT1-5} = 1.1A	 ●		1.2	 1.6	V V
V_{OUT0} to V_{OUT1-3} and V_{IN45} to V_{OUT4-5} Dropout Voltage	I_{OUT1-5} = 100mA I_{OUT1-5} = 1.1A	 ●		100	 500	mV mV