NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

Revision 2.2:

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FB	17	Feedback Input. Connect a resistor divider from VOUT to FB to set up output voltage. The device regulates FB to the internal reference value of 1.2V typical.
COMP	18	Output of the error amplifier and switching converter loop compensation point.
ILIM	19	Inductor peak current limit set point input. A resistor connecting this pin to ground sets current limit through low-side power FET.
AGND	20	Analog ground. Analog ground should be used as the common ground for all small signal analog inputs and compensation components. No electrical connection to PGND inside.
PGND	21	Power ground. Must be soldered directly to ground planes using multiple vias directly under the IC for improved thermal performance and electrical contact.

Over operating free-air temperature range unless otherwise noted

PARAMETER	DEFINITION	MIN	MAX	UNIT
V_{IN}	Input voltage range	2.7	14	V
V_{OUT}	Output voltage range	4.5	14.6	V
T_J	Operating junction temperature	-40	125	°C

PARAMETER	DEFINITION	MIN	MAX	UNIT
V_{ESD}	Human Body Model (HBM), per ANSI-JEDEC-JS-001-2014 specification, all pins (1)	-2	+2	kV
	Charged Device Model (CDM), per ANSI-JEDEC-JS-002-2014specification, all pins (1)	-0.5	+0.5	kV

(1) HBM and CDM stressing are done in accordance with the ANSI/ESDA/JEDEC JS-001-2014 specification

PARAMETER	THERMAL METRIC	DFN

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V_{IN}=3.6V, T_J=-40°C~125°C, typical values are tested under 25°C.

SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
Power Supply and Output						
V_{IN}	Operating input voltage		2.7		14	V
V_{OUT}	Output voltage range		4.5V		14.6	V
V_{IN_UVLO}	Input UVLO	V_{IN} rising		2.6	2.7	V
	Hysteresis			200		mV
I_{SD}	Shutdown current	EN=0, No load. Measured on VIN pin		1	3	uA
I_Q	Quiescent current from VIN					

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SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
T_{SD}	Thermal shutdown threshold	T_J rising		150		°C
	Hysteresis			20		°C

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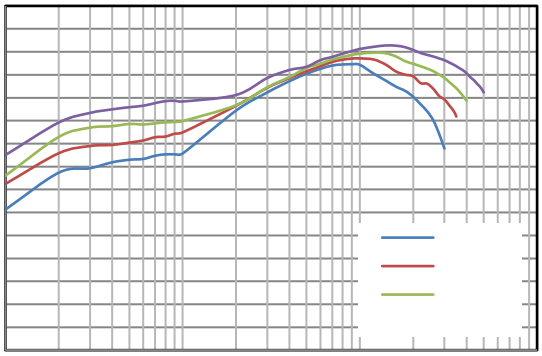

Figure 1. Efficiency, Vout=9V, fsw=560KHz, PFM

Figure 2. Efficiency, Vin=3.6V, fsw=560KHz, PFM

Figure 3. Efficiency, Vout=9V, fsw=560KHz, PWM

Figure 4. Efficiency, Vin=3.6V, fsw=560KHz, PWM

Figure 5. Switching Frequency vs FSW Resistance

Figure 6. Inductor Peak Current Limit vs RLIM Resistance

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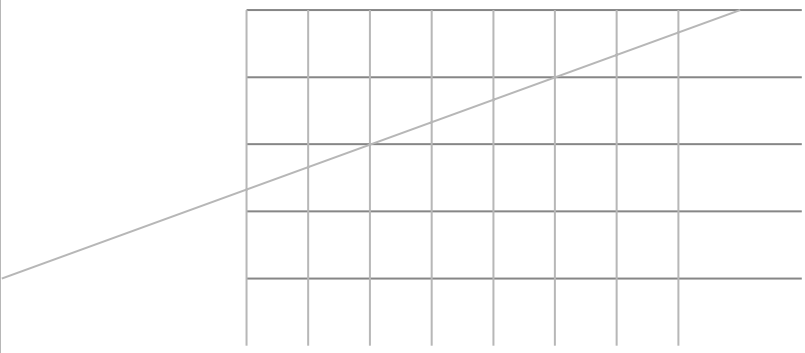

Figure 7. Frequency vs Temperature

Figure 8. Quiescent Current vs Temperature

Figure 9. Shutdown Current vs Temperature

Figure 10. Feedback Reference Voltage vs Temperature

Figure 11. Load Regulation (Vin=3.6V, Vout=9V)

Figure 12. Line Regulation

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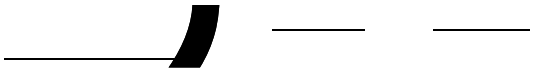
calculations and bench evaluation. In this application, the WB's inductor CDMC8D28NPWB-2MC is used on SCT12A0 evaluation board.

S(c)456(o)8(e)]TJETO EMC /Span <MCID 1/Lang (en-US)>B1/F3 9.96 Tf1 0922269.9304.733/53 nBT/F3 9.9n-USsS(c)456(o)8 G 0.0778 T



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REEL DIMENSIONS

Reel Width	A	B	C	D	t
12	Ø329±1	12.8±1	Ø100±1	Ø13.3±0.3	2.0±0.3

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