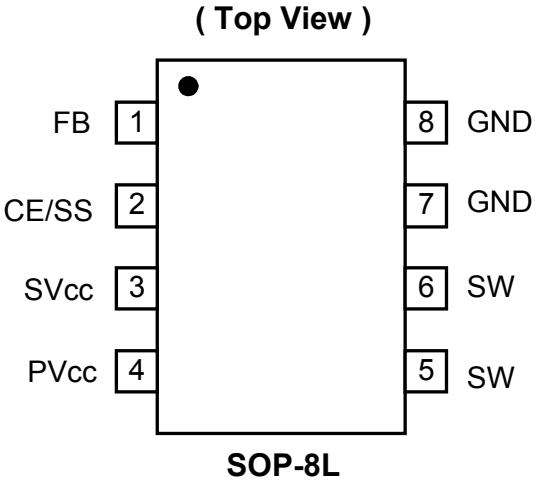
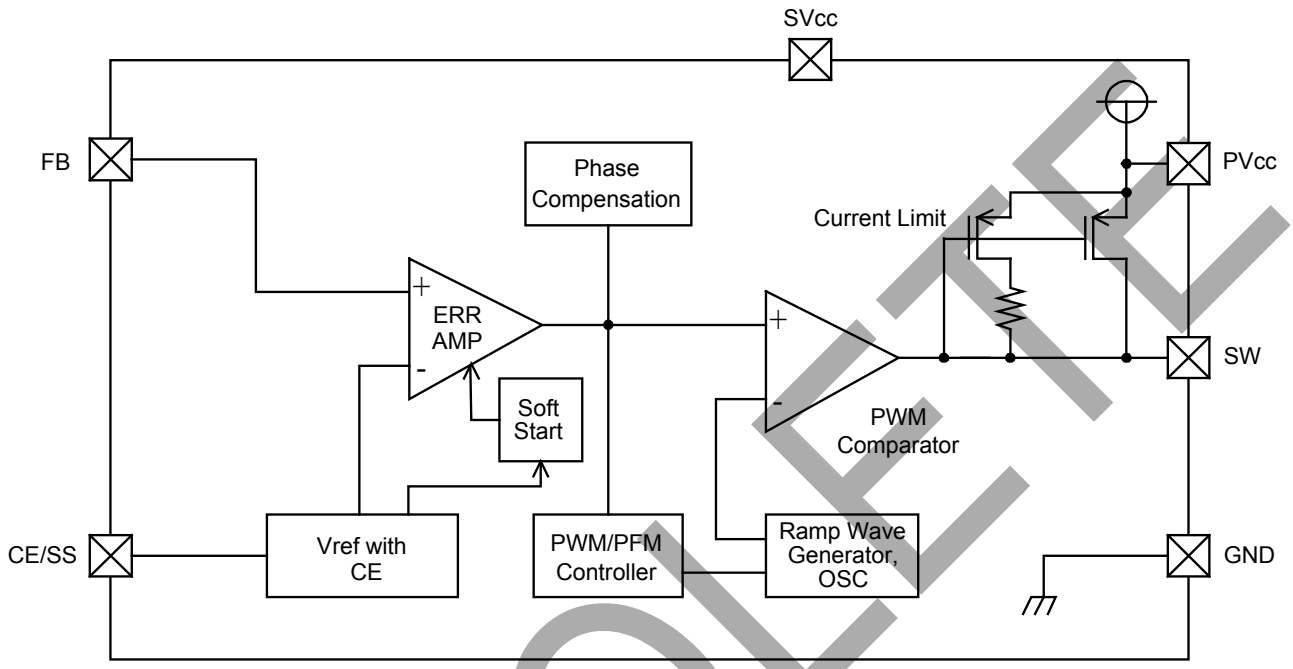
Pin Assignments



Pin Descriptions

Pin Name	Pin No.	Description
FB	1	Feedback pin
CE/SS	2	Chip Enable/ Soft Start: H: Enable L: Disable
SVcc	3	IC signal power supply pin, add a 20Ω resistor to PVcc and a 0.1μF capacitor to GND.
PVcc	4	IC power supply pin
SW	5/6	Switch Pin. Connect external inductor/diode here. Minimize trace area at this pin to reduce EMI.
GND	7/8	GND Pin

Block Diagram



Absolute Maximum Ratings (T_A=25°C)

Symbol	Parameter	Ratings	Units
V_{CC}/SV_{CC}	V_{IN} Pin Voltage	-0.3 ~ 5.0	V
V_{SW}	SW Pin Voltage	-0.3 ~ V_{IN}+0.3	V
V_{FB}	FB Pin Voltage	-0.3 ~ V_{IN}+0.3	V
$V_{CE/SS}$	CE/SS Pin Voltage	-0.3 ~ V_{IN}+0.3	V
P_D	Continuous Total Power Dissipation	Internal limited	
T_{OPR}	Operating Ambient Temperature	-25 ~ +80	°C
T_{STG}	Storage Temperature	-40 ~ +125	°C

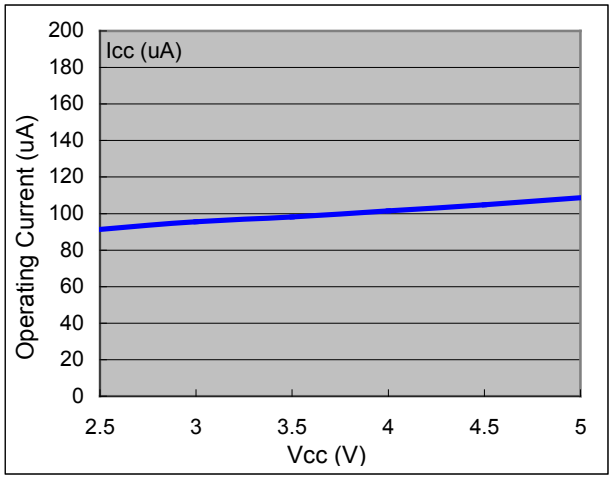
Electrical Characteristics

V_{IN}=5V, V_{OUT}=2V, Load=300mA, T_A=25°C

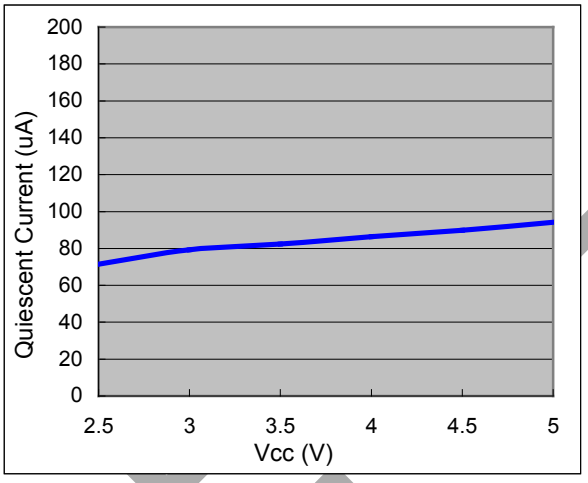
Symbol	Parameter	Conditions	Min	Typ.	Max	Units
V_{FB}	FB		0.975	1.0	1.025	V
V_{IN}	Input Voltage		2.2	-	5	V
	Line Regulation	V_{IN}=2.2~5V, Load=10mA	-	-	0.12	%
	Load Regulation	I_{OUT}=10~1200mA	-	-	1.2	%
V_{UVLO}	UVLO Voltage（min. operating voltage）	V_{CC}, voltage required to maintain H at V_{OUT}	-	-	2	V
I_{CC}	Operating Current	CE/SS=V_{IN}, No Load	-	100	150	μA
I_{CCQ}	Supply Current	No external components, CE/SS=V_{IN}, V_{FB}=1.2V	-	90	120	μA
I_{STB}	Stand-by Current	No external components, CE/SS=0V, V_{FB}=0V	-	6	-	μA
I_{CL}	Current Limit	Peak current V_{IN}=5V, V_{OUT}=2V	1200	1400	1600	mA
Fosc	Oscillator Frequency	Load=300mA, V_{IN}=5V, V_{OUT}=2V	500	700	-	kHz
MAXDTY	Maximum Duty Ratio		85	90	-	%
PFMDTY	PFM Duty Ratio	No load	15	25	35	%
V_{CEH}	CE/SS ”High” Voltage	Apply 1.4V (min.) to CE/SS, determine V_{OUT} “High”	1.4	-	-	V
V_{CEL}	CE/SS ”Low” Voltage	Same as V_{CEH}, determine V_{OUT}/“Low”	-	-	0.6	V
EFFI	Efficiency	V_{CC}=5V, V_{OUT}=3.3V, Load=300mA	-	93	-	%
Rdson	Rdson Condition	I_{OUT}=300mA, V_{IN}=5V, V_{OUT}=2V	-	350	450	mΩ

Typical Performance Characteristics

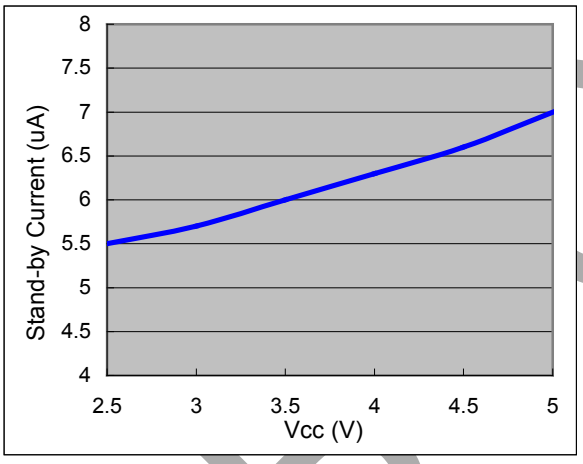
Vcc vs. Operating Current



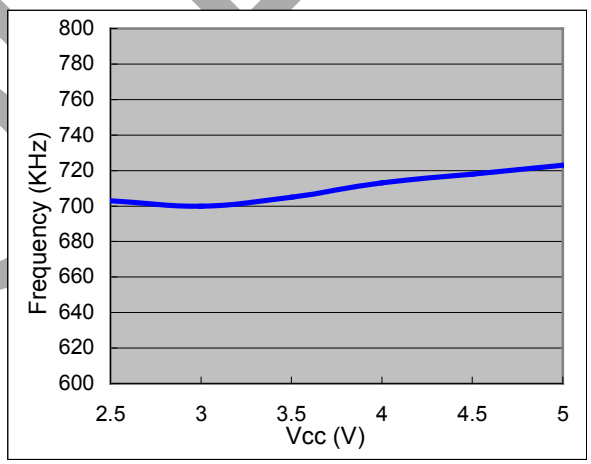
Vcc vs. Quiescent Current



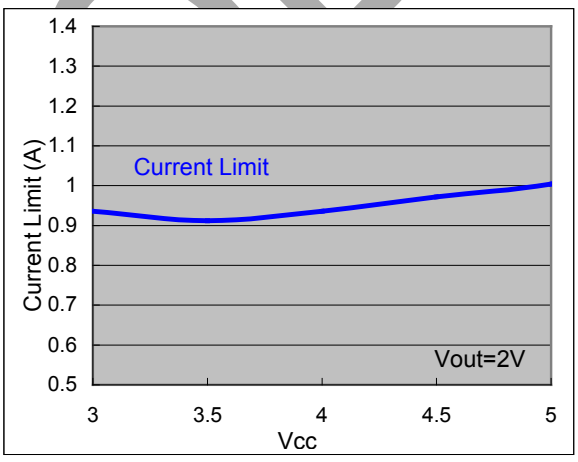
Vcc vs. Stand-by Current



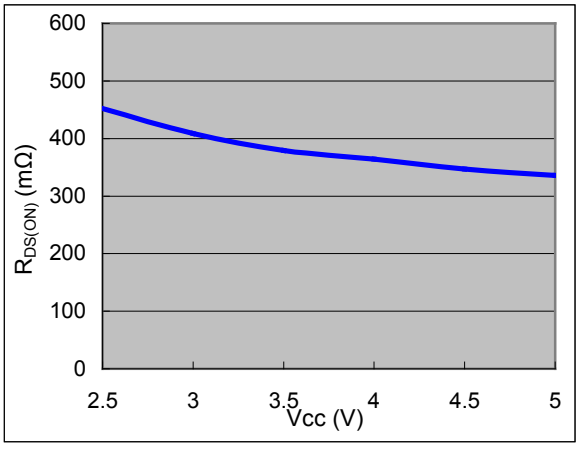
Vcc vs. Frequency



Vcc vs. Current Limit

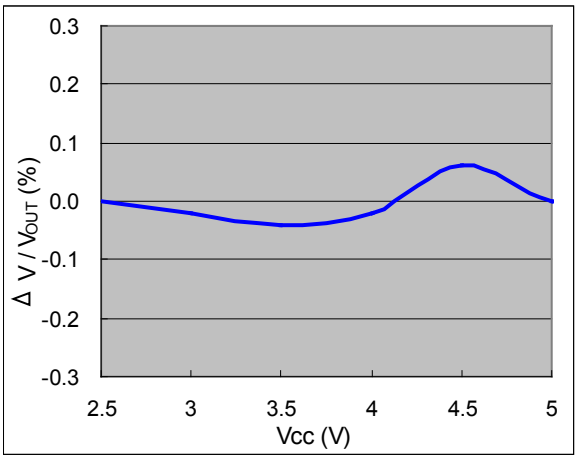


Vcc vs. $R_{DS(ON)}$

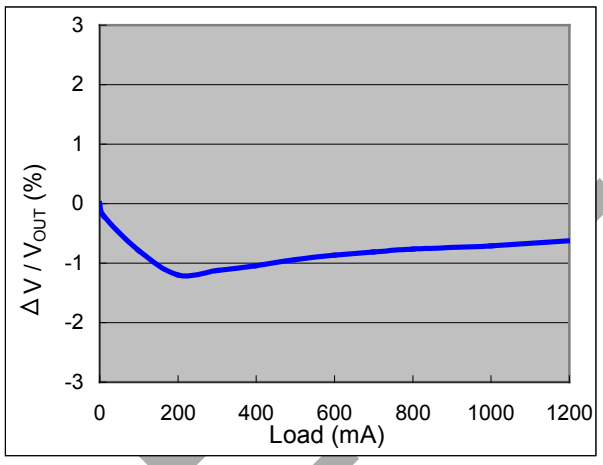


Typical Performance Characteristics (Continued)

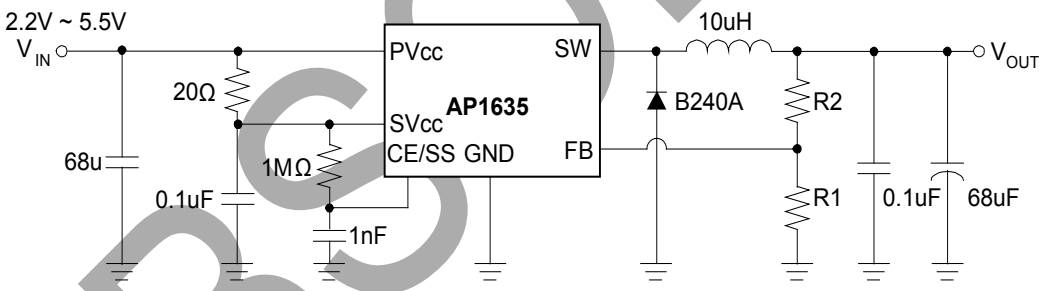
Line Regulation



Load Regulation



Typical Application Circuit

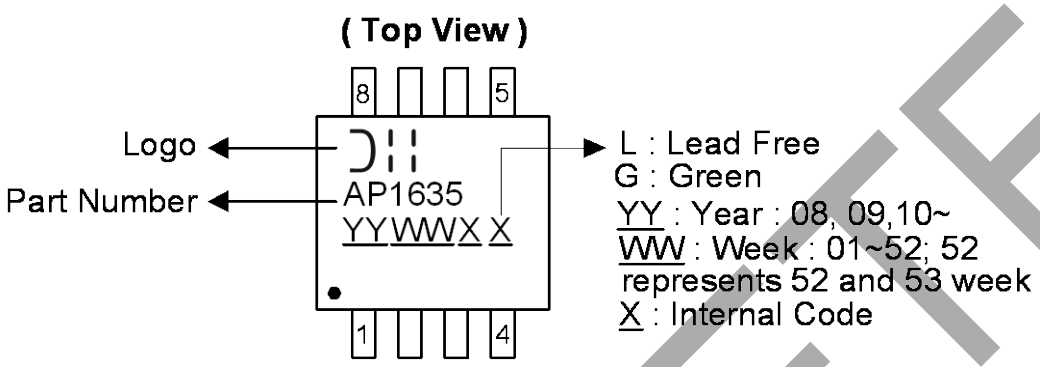


$$Vout = 1 \times (1 + \frac{R2}{R1})$$

R1=100K ~ 200K

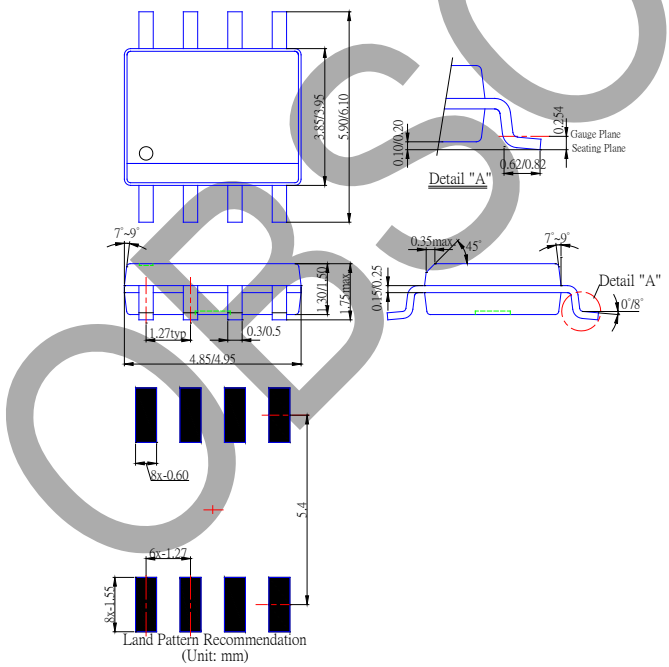
Marking Information

(1) SOP-8L



Package Information (All Dimensions in mm)

(1) Package Type: SOP-8L



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