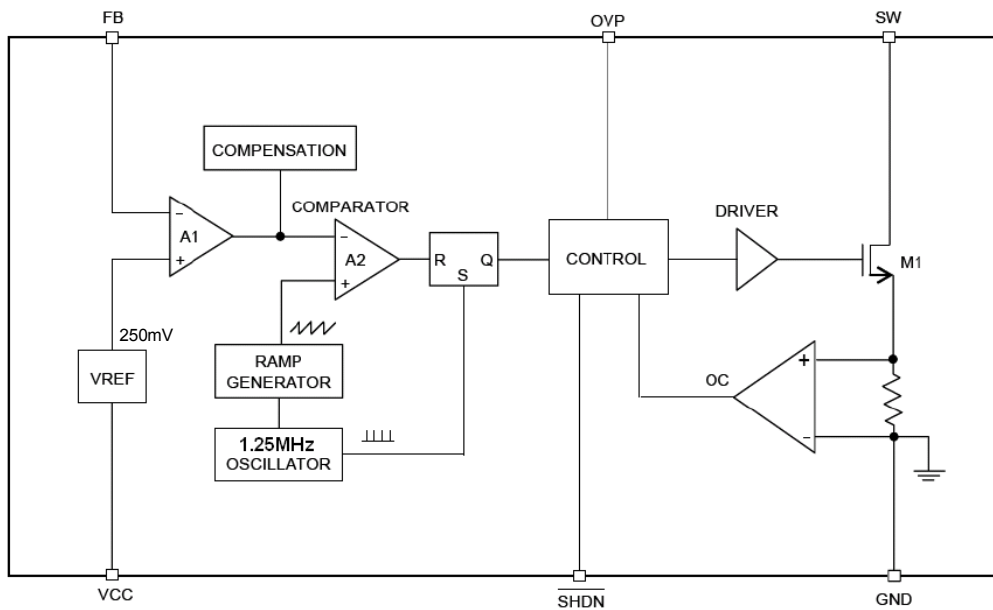


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● Pin Description

Pin No.	Pin Name	Pin Function
1	SW	Switch Pin. Connect inductor/diode here. Minimize trace area at this pin to reduce EMI.
2	GND	Ground Pin. Connect directly to local ground plane.
3	FB	Feedback Pin. Reference voltage is 250mV. Connect cathode of lowest LED and resistor here. Calculate resistor value according to the formula: $R_{FB} = 250mV/I_{LED}$
4	SHDN	Shutdown Pin. Connect to 1.8V or higher to enable device; 0.4V or less to disable device.
5	OVP	Over Voltage Protection Sense Pin.
6	VIN	Input Supply Pin. Must be locally bypassed.

● Functional Block Diagram



● Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
IN Voltage	V_{IN}	12	V
SW/OVP Voltage	V_{OUT}	36	V
FB Voltage	V_{FB}	10	V
SHDN Voltage	V_{SHDN}	10	V
Operating Junction Temperature	T_{opr}	-40 to +85	°C
Storage Temperature Range	T_{stg}	-65 to +150	°C

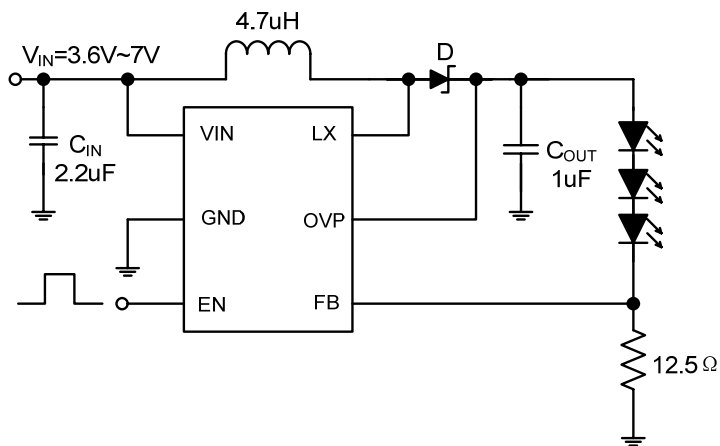
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Electrical Characteristics

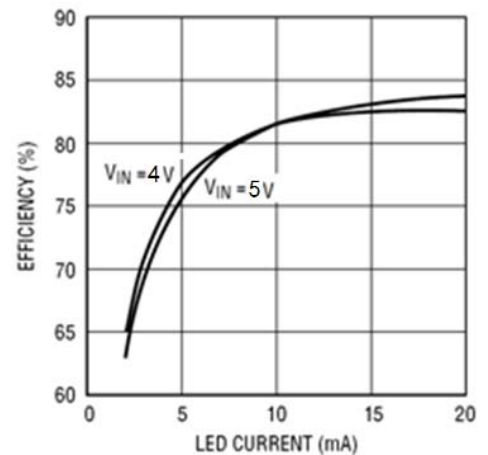
($V_{IN} = V_{OUT} + 0.5V$, $V_{EN} = V_{IN}$, $C_{OUT} = 1\mu F$, $T_J = 25^\circ C$ unless otherwise specified)

Parameter	Parameter	Min	Typ	Max	Units
Operating Voltage		2.5		10	V
Feedback Voltage	$I_{SW} = 100mA$, Duty Cycle = 66%	235	250	265	mV
Over Voltage Protection Threshold			29		V
FB Pin Bias Current		10	45	100	nA
Supply Current			1.9	2.5	mA
	SHDN = 0V		0.1	1.0	mA
Switching Frequency		0.8	1.2	1.6	MHz
Maximum Duty Cycle			85	90	%
Switch Current Limit			340		mA
Switch VCESAT	$I_{SW} = 250mA$		30		mV
Switch Leakage Current	$V_{SW} = 5V$		0.01	5	mA
SHDN Voltage High		1.8			V
SHDN Voltage Low				0.4	V
SHDN Pin Bias Current			65		uA

Typical Performance Characteristics

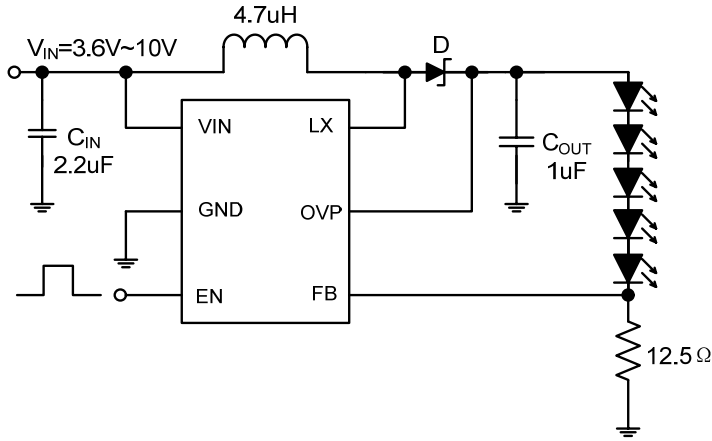


Li-Ion to Three White LEDs

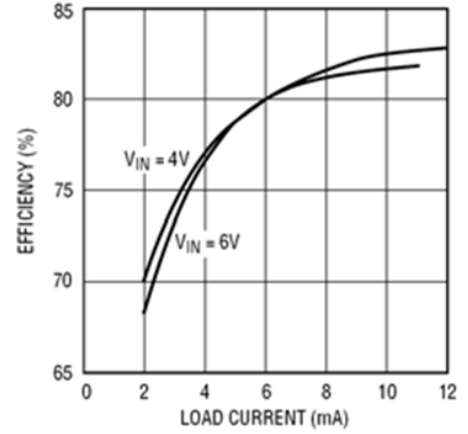


Three LED Efficiency

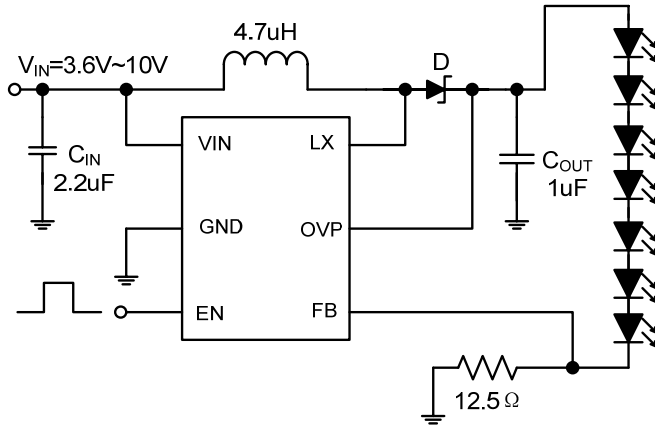
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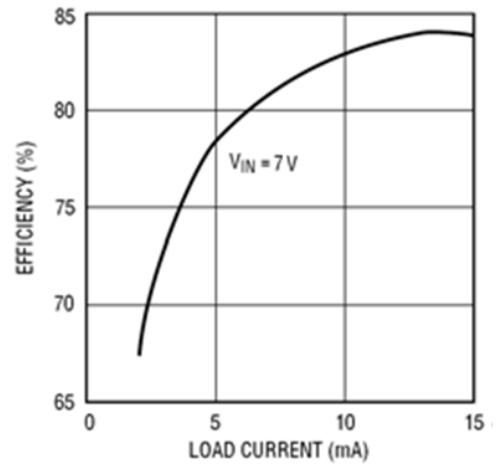
Li-Ion to Five White LEDs



Five LED Efficiency



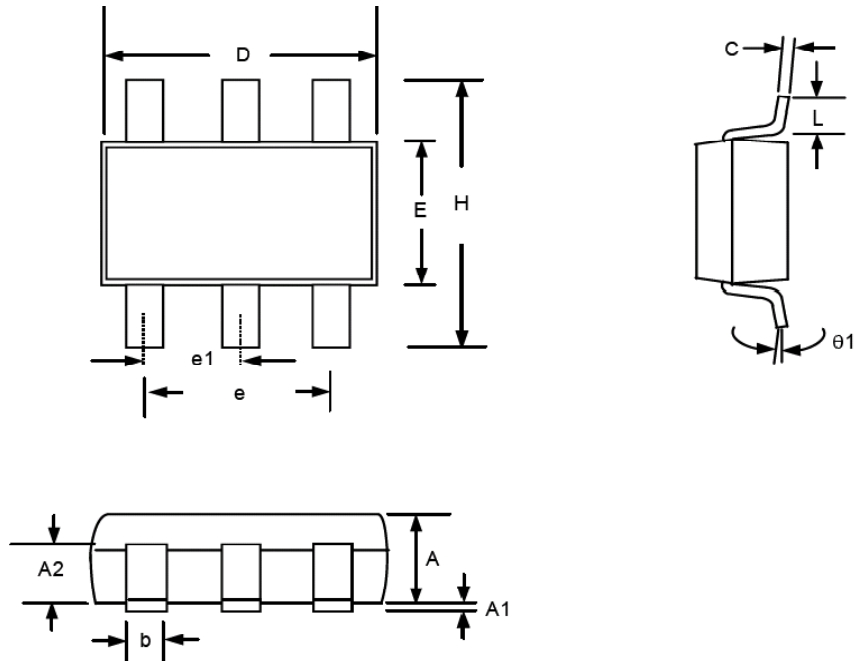
5V to Seven White LEDs



Seven LED Efficiency

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- Package Information



Symbol	Dimension mm			Dimension in inch		
	Min	Nom	Max	Min	Nom	Max
A	1.00	1.10	1.30	0.039	0.043	0.051
A1	0.00		0.10	0.000		0.004
A2	0.70	0.80	0.90	0.028	0.031	0.035
b	0.35	0.40	0.50	0.014	0.016	0.020
C	0.10	0.15	0.25	0.004	0.006	0.010
D	2.70	2.90	3.10	0.106	0.114	0.122
E	1.40	1.60	1.80	0.055	0.063	0.071
e	1.90(TYP)			0.075(TYP)		
H	2.60	2.80	3.00	0.102	0.110	0.118
L	0.37			0.015		
theta 1	1°	5°	9°	1°	5°	9°