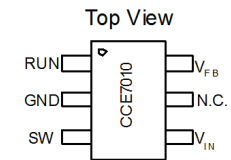
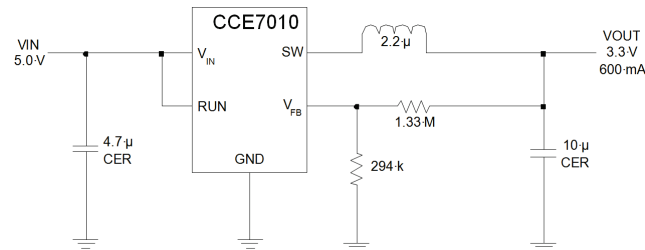


## CCE7010 600mA Synchronous Buck Converter

### FEATURES

- Current-mode operation
- 2.5V to 5.5V input voltage
- 0.6V to  $V_{IN}$  output voltage
- 600mA Output Current
- High efficiency: up to 95%
- Low current consumption in shutdown mode



### GENERAL DESCRIPTION

The CCE 7010 is a monolithic integrated circuit optimized for portable applications powered from one cell Li- Ion or three cell Alkaline/NiCd/NiMH batteries. The part is able to deliver up to 600 mA. . The internal 1.5 MHz oscillator reduces component size by allowing smaller inductors and capacitors. It uses synchronous rectification to increase efficiency and reduce the number external components. The CCE7010 can be used in in low-power designs and portable devices and is delivered in a small SOT26 package.

### ABSOLUTE MAXIMUM RATINGS $T_a = 25^{\circ}\text{C} \pm 1^{\circ}\text{C}^*$

Characteristic	Symbol	Rating	Unit
$V_{IN}$ Voltage	$V_{IN}$	6	V
SW Voltage (DC)	$V_{SW}$	$V_{IN} + 0.3$	V
P-Channel Switch Source Current	$I_{SWP}$	0.8	A
N-Channel Switch Sink Current	$I_{SWN}$	0.8	A
Pk SW Sink and Source Current	$I_{SWPP}$	1.3	A
ESD Protection	$V_{ESD}$	2	kV
Storage Temperature Range	$T_s$	-65 to 150	$^{\circ}\text{C}$

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### ELECTRICAL CHARACTERISTICS $T_a = 25^{\circ}\text{C} \pm 1^{\circ}\text{C}^*$

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Main Supply Voltage	$V_{IN}$	2.5		5.5	V
Feedback Current	$I_{FB}$			t.b.d.	nA
$R_{DS(ON)}$ P-Channel MOSFET	$R_{PFET}$		0.25	0.35	$\Omega$
$R_{DS(ON)}$ N-Channel MOSFET	$R_{NFET}$		0.25	0.35	$\Omega$
Shutdown Current	$I_{SD}$			1	$\mu\text{A}$
Oscillator Frequency	$f_{OSC}$	1.2	1.5	1.8	MHz
Feedback Voltage (Reference Voltage)	$V_{FB}$	0.588	0.600	0.612	V
Feedback Voltage Line Regulation	$\Delta V_{FB}$		0.04	0.4	%/V

\*) unless otherwise specified