

# CD5022 PWM Controller

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## General Description

The CD5022 is a controller for Boost and SEPIC regulators. The device contains all of the features needed to implement single ended primary power converter topologies. Output voltage regulation is based on current-mode control and this not only eases the design of loop compensation, but also provides the inherent input voltage feedforward.

The CD5022 includes a start-up voltage regulator that operates over a wide input range of 6V to 60V. The PWM controller is designed for high speed capability including an oscillator frequency range to 2.2MHz and total propagation delays less than 100ns. Additional features include an error amplifier, precision reference, line under-voltage lockout, cycle-by-cycle current limit, slope compensation, soft-start, external synchronization capability and thermal shutdown.

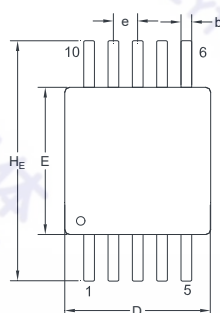
## Absolute Maximum Ratings

VIN to GND	-0.3V to 65V
VCC to GND	-0.3V to 16V
RT to GND	-0.3V to 5.5V
All other pins to GND	-0.3V to 7V
Junction temperature	150°C
Storage temperature	-65°C to 150°C

## Recommended Operating Conditions

VIN voltage	6V to 60V
VCC voltage	7.5V to 14V
Operating junction temperature ( $T_J$ )	-40°C to 125°C

## Package Diagram



Top View



Front View



Left View

Size			
Symbol	Min.	Max.	Unit
A	—	1.10	mm
A1	0.02	0.15	
b	0.17	0.33	
c	0.09	0.23	
D <sup>a</sup>	2.90	3.10	
E <sup>a</sup>	2.90	3.10	
e	0.50		
H <sub>E</sub>	4.70	5.10	
L <sub>p</sub>	0.40	0.70	
L	0.95		
θ	0	8	°

<sup>a</sup> The size dose not include burrs.

VSSOP10

## Typical Application

