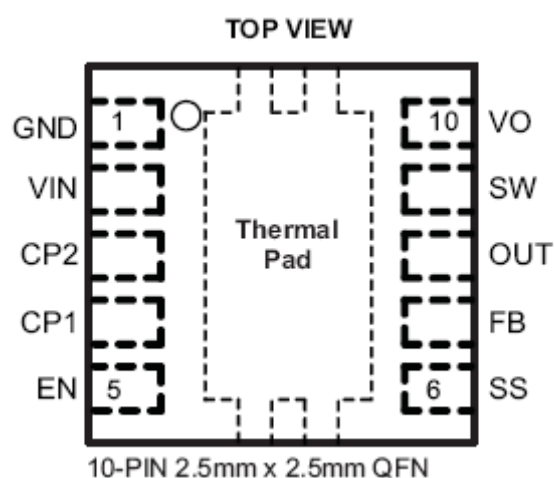




TPS61093 Low Input, 20V 1.1A Step-Up DC-DC Converter with Integrated Power Diode and Input Output Isolation

General Description:

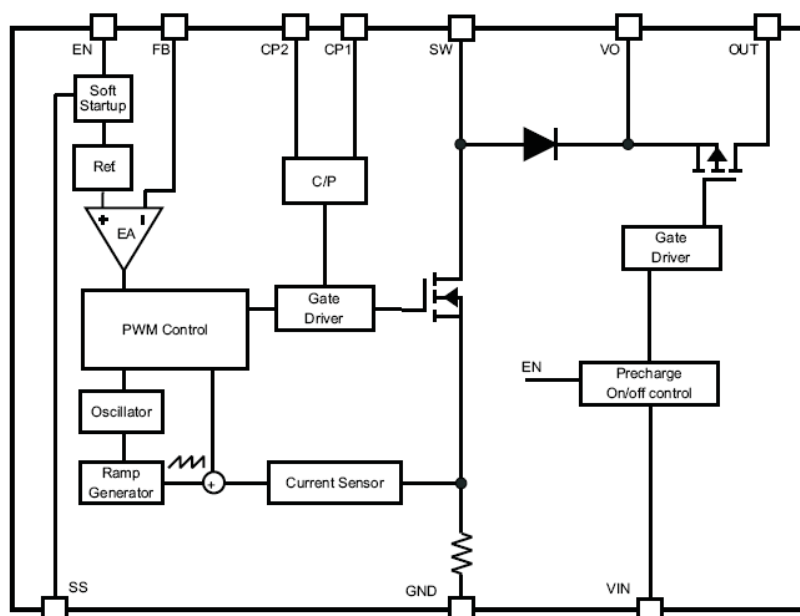
The TPS61093 is a 1.2-MHz, fixed-frequency boost converter designed for high integration and high reliability. The IC integrates a 20-V power switch, input/output isolation switch, and power diode. When the output current exceeds the over load limit, the IC's isolation switch opens up to disconnect the output from the input. This protects the IC and the input supply. The isolation switch also disconnects the output from the input during shutdown to minimize leakage current. When the IC is shutdown, the output capacitor is discharged to a low voltage level by internal diodes. Other protection features include 1.1-A peak over-current protection (OCP) at each cycle, output over voltage protection (OVP), thermal shutdown, and under voltage lockout (UVLO).



Key Features:

- Input Range: 1.6-V to 6-V
- Integrated Power Diode and Isolation FET
- 20-V Internal Switch FET With 1.1-A Current
- Fixed 1.2-MHz Switching Frequency
- Efficiency at 15-V Output up to 88%
- Over Load and Over Voltage Protection
- Programmable Soft Start-up
- Load Discharge Path After IC Shutdown

FUNCTIONAL BLOCK DIAGRAM



TYPICAL CHARACTERISTICS

- 2.5 × 2.5 × 0.8 mm SON Package

Applications:

- Glucose Meter
- OLED Power Supply
- 3.3-V to 12-V, 5-V to 12-V Boost Converter

Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
TPS61093DSKT	1784773	35R2720	Low Input, 20V/1.1A Step-Up DC/DC Converter with Integrated Power Diode and Input/Output Isolation