

### Description

The PT7740 is a high-output 32 Amp “Current Booster” designed to operate with the PT7778 regulator. Up to two PT7740 boosters will operate in parallel with a PT7778, boosting output current in increments of 32A. Combinations of a PT7778 series regulator and PT7740 current boosters can supply enough power for virtually any multiple mega-processor application.

The booster adds a parallel output stage that is driven directly by the regulator. Both operate in perfect synchronization for a low noise solution.

The PT7740 only operates with a PT7778 regulator and is not a stand-alone product. Please refer to the PT7778 data sheet for the performance specifications. The current booster has the same package options as its companion regulator.

### Pin-Out Information

Pin	Function	Pin	Function
1	Do not connect	14	GND
2	Do not connect	15	GND
3	Do not connect	16	GND
4	Do not connect	17	GND
5	Do not connect	18	GND
6	Do not connect	19	GND
7	V <sub>in</sub>	20	V <sub>out</sub>
8	V <sub>in</sub>	21	V <sub>out</sub>
9	V <sub>in</sub>	22	V <sub>out</sub>
10	V <sub>in</sub>	23	V <sub>out</sub>
11	V <sub>in</sub>	24	V <sub>out</sub>
12	Do not connect	25	V <sub>out</sub>
13	GND	26	Do not connect
		27	Master Sync In

### Ordering Information

#### PT7740□

(For dimensions and PC Board layout, see Package Styles 1020 and 1030.)

#### PT Series Suffix (PT1234X)

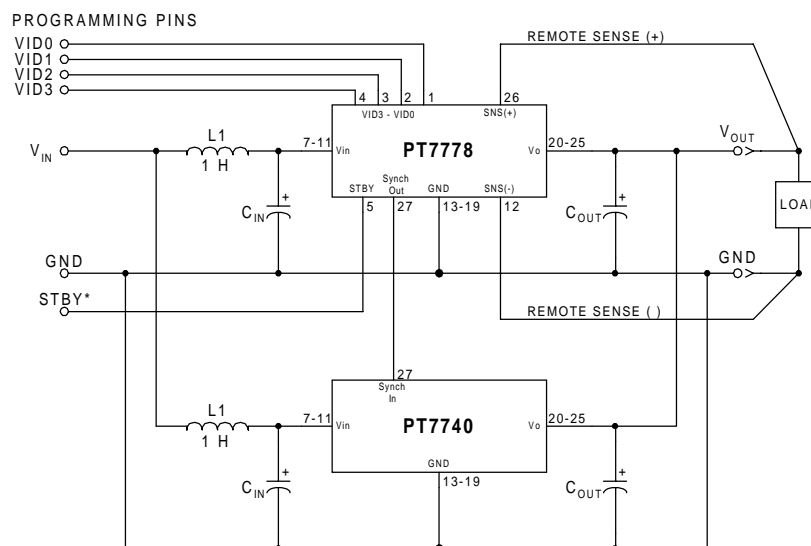
##### Case/Pin Configuration

Vertical Through-Hole	<b>N</b>
Horizontal Through-Hole	<b>A</b>
Horizontal Surface Mount	<b>C</b>

### Features

- 32A Current Boost
- Tracks V<sub>o</sub> of a PT7778
- High Efficiency
- Input Voltage Range: 3.1V to 3.6V
- Synchronized with PT7778
- 27-pin SIP Package
- Run up to 2 in Parallel (96A)

### Standard Application



**External Capacitors:** When used with a PT7778, the PT7740 requires a minimum output capacitance of 330µF. The maximum allowable output capacitance is 30,000µF. The PT7740 also requires a minimum input capacitance of 2400µF, which must be rated for a minimum of 2.0Arms of ripple current. For transient or dynamic load applications, additional capacitance may be required. For further information, see the accompanying application note on capacitor selection for this product.

**Input Filter:** An input filter inductor is optional for most applications. The input inductor must be sized to handle 32ADC with a typical value of 1µH.