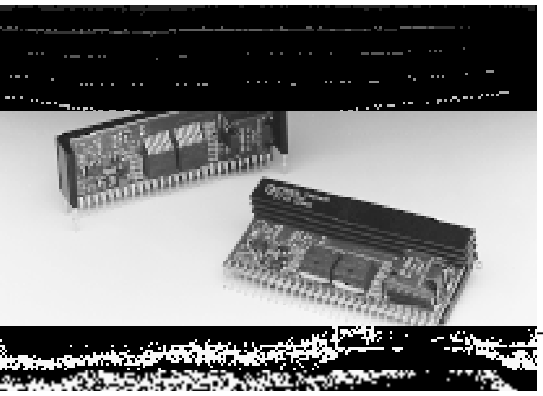
PT7749—5V

18 Amp "Current Booster" for PT7700 Series

Power Trends Products from Texas Instruments

SLTS052A

(Revised 6/30/2000)



The PT7749 is a high-performance 18 Amp "Current Booster" for the PT7705/6 Regulators housed in a 27-pin SIP package.

Multiple PT7749 boosters will operate in parallel with the PT7705/6 regulators, boosting output current in increments of 18A . Combinations of a PT7705/6 and PT7749 current boosters can easily supply enough power for virtually any multiple megaprocessor application.

A PT7749 current booster adds a parallel output stage driven directly by the main regulator. As such, the system runs in perfect sychronization providing a low noise solution.

The PT7749 only operates in combination with the PT7705/6 regulators and is not a stand-alone product. Therefore please refer the appropriate series data sheet for performance specifications.

Features

- Current Boost
- Tracks Vout of PT7705/06/07
- High Efficiency
- Input Voltage Range: 3V to 5.5V
- Synchronized with Regulator
- 27-pin SIP Package
- Run up to 4 in Parallel - 90 Amps

Pin-Out Information

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

Ordering Information

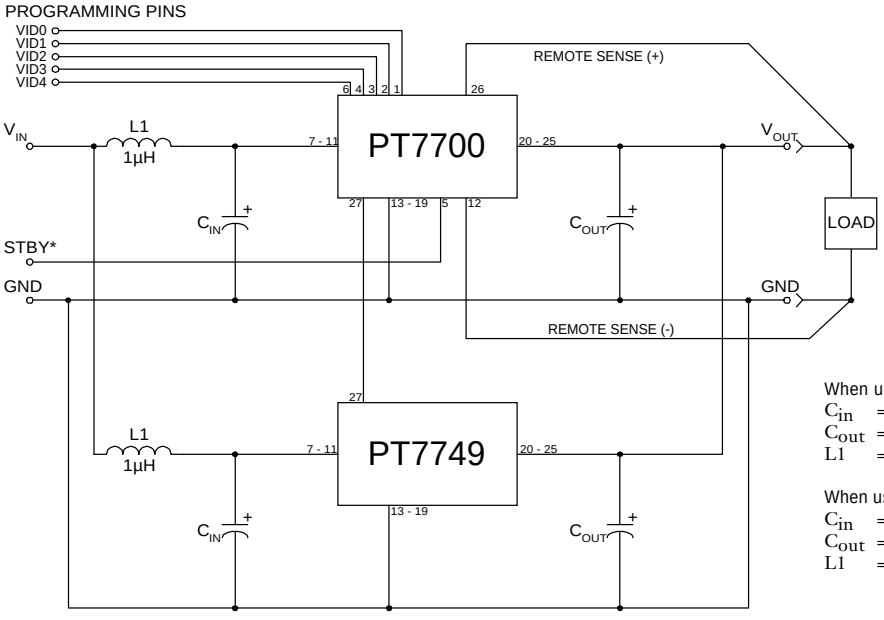
PT7749❑

(For dimensions and PC Board layout, see Package Styles 800 and 810.)

PT Series Suffix (PT1234X)

Case/Pin Configuration	
Vertical Through-Hole	N
Horizontal Through-Hole	A
Horizontal Surface Mount	C

Standard Application



When used with PT7705/7706:
C_{in} = Required 1200µF electrolytic
C_{out} = Required 1200µF electrolytic
L1 = Optional 1µH input choke

When used with PT7707:
C_{in} = Required 1200µF electrolytic
C_{out} = Required 330µF electrolytic
L1 = Optional 1µH input choke

Output Capacitors: When used with a PT7705or PT7706, the PT7749 requires a minimum ouput capacitance of 1200µF. When used with a PT7707, the PT7749 requires a minimum ouput capacitance of 330µF for proper operation. Do not use Oscon type capacitors. The maximum allowable output capacitance is 15,000µF.

Input Filter: An input filter is optional for most applications. The input inductor must be sized to handle 18ADC with a typical value of 1µH. The input capacitance must be rated for a minimum of 1.3Arms of ripple current. For transient or dynamic load applications, additional capacitance may be required.

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