

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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APC18

75 Watts

Data Sheet

Total Power: 75 Watts **Input Voltages:** 10.0 - 14.0 V **# of Outputs:** Single

SPECIAL FEATURES

- Point-of-load (POL) applications)
- High current slew rate at 2.5 A / μS¹
- Open frame SMT
- High efficiency, 3.3 V @ 92% typical
- Adjustable output through external resistor programming
- -40 °C to +85 °C ambient operating temperature
- UVLO protection
- Positive Enable function
- Low output ripple and noise
- Regulation to zero load

SAFETY

- UL/cUL 60950 Recognized
- TÜV EN60950 Licensed



| Electrical Specifications | | | | | |
|---------------------------------|--|--|--|--|--|
| Input | | | | | |
| Input voltage range | 10.0 = 14.0 V | | | | |
| Input surge | 15 V | | | | |
| Efficiency | 3.3 V @ 92% typical | | | | |
| Control | | | | | |
| Enable | TTL compatible (positive enable | | | | |
| Output | | | | | |
| Regulation (line, Load, Temp) | <3% | | | | |
| Load current | 18 A max | | | | |
| Ripple and noise ¹ | 50 mV | | | | |
| Output adjust range | 0.75 V - 5.5 V | | | | |
| Current slew rate | up to 2.5 A / μS | | | | |
| Transient response ¹ | 3% typical deviation (for 5 Vo) for 50% to 75% step load 200 µS recovery | | | | |
| Remote sense | 10% of Vo | | | | |
| Turn on input voltage | 10 V (typical) | | | | |
| UVLO hysteresis | 1 V (typical) | | | | |
| OCP/OTP | Hiccup - auto recovery | | | | |
| Isolation | Non-isolated module | | | | |



| Environmental Specifications | | |
|------------------------------|-------------------|--|
| Operating temperature | -40 °C to +85 °C | |
| Storage temperature | -40 °C to +125 °C | |
| MTBF | 1 million hours | |

to to the tree

| Ordering Information | | | | | | |
|----------------------|---------------|-----------------|----------------|----------------------|--|--|
| Model Number | Input Voltage | Output Voltage | Output Current | Efficiency (Typical) | | |
| APC18T12-9(J)L | 10.0 - 14.0 V | 0.75 - 5.50 Vdc | 18 A | 92% | | |

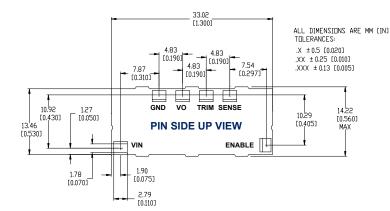
Note:

18 A max output current with total output power limited to 75 W - minimal output derating required

Typical efficiency for $3.3\,\mathrm{V}$ output; full load; noiminal inut voltage; $200\,\mathrm{LFM}$ at $\mathrm{Ta} = 25\,\mathrm{^{\circ}C}$

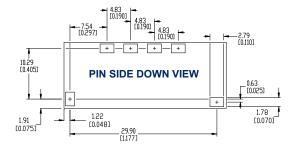
Suffix "J" designates tray packaging, non "J" is tape and reel

Mechanical Drawings



Recommended PAD Layout

MIN: 1.6 x 2.8 mm [0.065 x 0.110 inches] REC: 1.8 x 2.8 mm [0.070 x 0.110 inches] MAX: 2.0 x 3.0 mm [0.080 x 0.130 inches]



Notes:

- 1. 200 uF and 2x 150uF input and output capacitance required.
- 2. All specifications are typical at nominal line, full load and 25°C ambient temperature unless otherwise noted.
- All specifications subject to change without notice. Mechanical drawings are for 3 reference only.
- 4. Technical Reference Notes should be consulted for detailed information
- 5. Warranty: One year

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