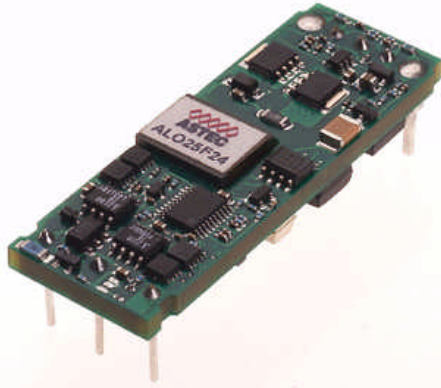


# 25 Amps

## ALO25

High Efficiency 1/8 Brick



### Special Features

- High efficiency (88% Typical)
- -40°C to +85°C Ambient Air Operation
- Industry standard package  
0.8" x 2.3" x 0.34"
- High capacitive load limit on start-up
- ON/OFF Enable
- Remote sense compensation
- Basic insulation
- Regulation to zero load
- Fixed frequency switching

### Environmental

Ambient air operating temperature range:  
-40°C to +85°C

Storage temperature: -40°C to +125°C

Overtemperature protection: 115°C PCB  
temperature (Typical)

MTBF: > 1 million hours

### Safety

UL,cUL 60950

TUV EN60950

Total Power: 82W  
Input Voltages: 24V  
No. of Outputs: Single

### Electrical Specs

#### Input

Input Range 18 to 36 VDC  
Input Surge 50V /100ms

Efficiency 88% @3.3V Typ

#### Output

Line Regulation  $\pm 0.1\%$   
Load Regulation 10mV Typ

Output Voltage Setpoint  $\pm 1\%$

Noise/Ripple 40mV Typ  
Remote sense Up to 10% of  $V_o$   
Transient Response 5%  $V_o$  (typ) deviation  
50% to 75% Load change  
100 $\mu$ s (typ) recovery time

Overvoltage Protection 125% typ  
Current Limit 110% nominal output  
Switching Frequency 660kHz typ

#### Control

Voltage Adjust 90 to 110%  $V_o$

Enable TTL compatible  
(positive & negative enable options)



## Ordering Information

Input Voltage	Output Voltage	Output Current	Efficiency	Model Number
18V to 36V	3.3V	25A	88% Typ	ALO25F24(N) - (6)(S)

**NOTES:**

Efficiency values taken at nominal input full load condition, 25°C ambient temperature.

**OPTIONS**

"N" = Negative logic enable (without "N" = positive enable)

"S" = SMT (default is TH)

"6" = 3.7mm pin length option (default pin length is 5mm nominal)

## Pin Assignments

**Single Output**

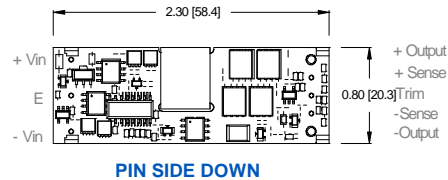
1. + Vin
2. Enable
3. - Vin
4. - Vout
5. - Sense
6. Trim
7. + Sense
8. Output Rtn

**Notes:**

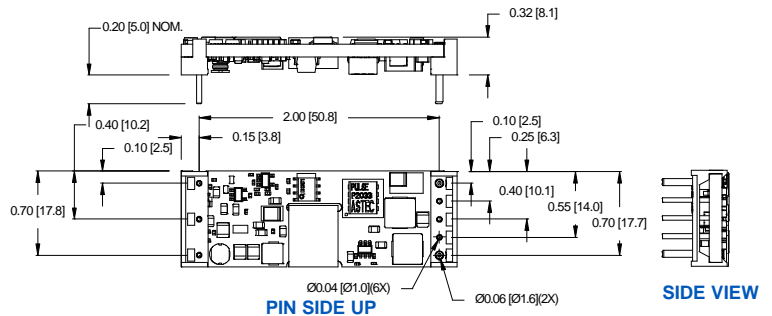
1. 20 MHz bandwidth. External 10 uF tant. capacitor in parallel with 1 uF ceramic capacitor placed across the output and secondary return ground.
2. Efficiency measurements are typical values taken at full load, nominal line and T<sub>A</sub> = 25°C.
3. All specifications are typical at nominal line, full load and T<sub>A</sub> = 25°C unless otherwise noted.
4. All specifications subject to change without notice.
5. Mechanical drawings are for reference only. Dimensions are in inches [mm]. Pin placement tolerance ± 0.005 [0.127]. Mechanical Tolerance ± 0.02 [0.5], recommended surface mount pads (min: 0.080 x 0.112 [2.03 x 2.84] / max: 0.092 x 0.124 [2.34 x 3.15]); through hole pin diameter (Pins 4 & 8) Ø = 0.062 [1.57], others Ø = 0.04 [1.0] (6X).
6. Safety approval for 3.3V version is available.
7. Technical Reference Notes should be consulted for detailed information when available.
8. Warranty 1yr.

Astec reserves the right to make changes to the information contained herein without notice and assumes no liability as a result of its use or application. (REV02: MARCH 7, 2005)

**Through Hole**

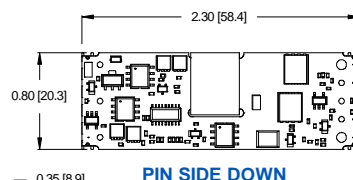


**PIN SIDE DOWN**

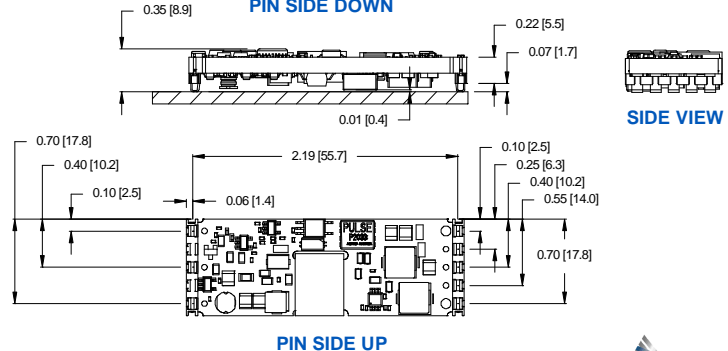


**PIN SIDE UP**

**Surface Mount**



**PIN SIDE DOWN**



**PIN SIDE UP**