

# 15 Watts

## AK40A

Total Power: 15W  
 Input Voltages: 24V, 48V  
 No. of Outputs: Single



### Electrical Specs

#### Input

Input Range	36 to 75 VDC for 48V 18 to 36 VDC for 24V
Maximum Inrush Current Limit:	1.0 A Max
Maximum External Capacitor to Limit:	4.0mF
Low Input Shutdown:	34.0V $\pm$ 2.0V for 48V 17.0V $\pm$ 1.0V for 24V
Auto Recovery:	37.0V $\pm$ 2.0V for 48V 18.5V $\pm$ 1.0V for 24V
Hysteresis:	3.0V $\pm$ 1.0V for 48V 1.5V $\pm$ 0.5V for 24V
Efficiency:	85%
Enable:	Open Circuit or up to 0.5V max.
Disable:	4V min, 75V max

#### Output

Voltage Tolerance:	$\pm$ 3% for single output
Noise/Ripple:	75mVrms max.
Output Voltage Adjust Range:	$\pm$ 10% for single output
Overvoltage Protection:	Self limiting Clamp, 140% max
Short Circuit Protection:	Continuous Auto Start
Switching Frequency:	200kHz nominal

### Special Features

- Surface Mount
- High Power Density 15W/Cu. in.
- Full power capability without external heatsink
- Input differential and common mode filtering
- Hot insertable with inrush current limit
- Ability to limit inrush current in an external capacitor
- Input undervoltage lockout with hysteresis
- Output overvoltage protection
- Remote shutdown

### Environmental

Ambient air operating temperature range:  
-40°C to +75°C (no derating)

Cooling Method: Convection

MTBF: > 7.5 Mhrs

Storage and Handling per Jedec Std-033  
Moisture Sensitivity Level 2

### Safety

UL	1950
IEC	950
CSA	C22.2-9.50
CB	52719-106

AMERICAS

5810 Van Allen Way  
 Carlsbad, CA 92008  
 Telephone: 760-930-4600  
 Facsimile: 760-930-0698

EUROPE

Astec House, Waterfront Business Park  
 Merry Hill, Dudley  
 West Midlands, DY5 1LX, UK  
 Telephone: 44 (1384) 842-211  
 Facsimile: 44 (1384) 843-355

ASIA

Units 2111-2116, Level 21  
 Tower1, Metroplaza  
 223, Hing Fong Road  
 Fwai Fong, New Territories  
 Hong Kong  
 Telephone: 852-2437-9662  
 Facsimile: 852-2402-4426



AK40A

## Ordering Information

Input Voltage	Output Voltage	Maximum Power	Model Number
18V to 36V	1.5V @ 4A	6.0W	AK40A-024L-015F04SM
18V to 36V	1.8V @ 4A	7.2W	AK40A-024L-018F04SM
18V to 36V	2.1V @ 4A	8.2W	AK40A-024L-021F04SM
18V to 36V	2.5V @ 4A	12.0W	AK40A-024L-025F04SM
18V to 36V	3.3V @ 4A	13.2W	AK40A-024L-033F04SM
18V to 36V	5.0V @ 3A	15.0W	AK40A-024L-050F03SM
18V to 36V	12V @ 1.25A	15.0W	AK40A-024L-120F01SM
36V to 75V	1.5V @ 4A	6.0W	AK40A-048L-015F04SM
36V to 75V	1.8V @ 4A	7.2W	AK40A-048L-018F04SM
36V to 75V	2.1V @ 4A	8.2W	AK40A-048L-021F04SM
36V to 75V	2.5V @ 4A	12.0W	AK40A-048L-025F04SM
36V to 75V	3.3V @ 4A	13.2W	AK40A-048L-033F04SM
36V to 75V	5.0V @ 3A	15.0W	AK40A-048L-050F03SM
36V to 75V	12V @ 1.25A	15.0W	AK40A-048L-120F01SM

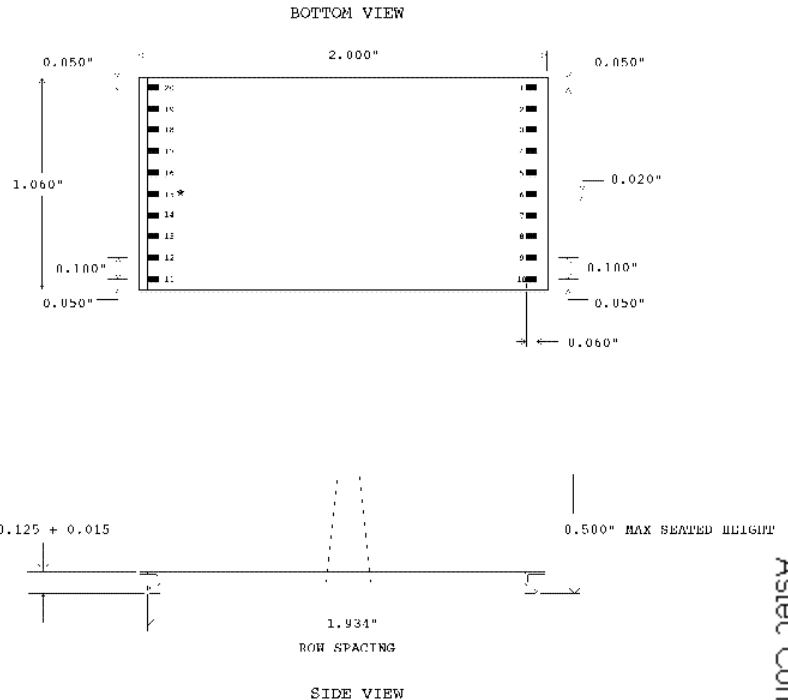
## Pin Assignments

### Single Output

1. +Vout
2. +Vout
3. +Vout
4. +Vout
5. -Vout
6. -Vout
7. -Vout
8. -Vout
9. Reserved
10. Adjust
11. Reserved
12. Reserved
13. Reserved
14. Reserved
15. Reserved
16. Reserved
17. +Vin
18. Shutdown
19. -Vin
20. Reserved

### Notes:

1. All specifications are typical at nominal input and full load unless otherwise noted.
2. Specification subject to change without notice.
3. Mechanical drawings are for reference only.
4. Minimum Load: 0.2A (min 15%).
5. Max. Capacitive Load: 330 mF.
6. Warranty: 1 yr.



Dimensions: Single Output: 1"W x 2"L x 0.5"H  
 Maximum Weight: Single Output: 20 grams

Astec Conventional Power