

# 5 Watts

## AA05E

Total Power: 5 Watts  
 Input Voltages: 12V, 24V or 48V  
 No. of Outputs: Single, Dual



### Electrical Specs

#### Input

Input Range	9-18 Vdc; 18-36 Vdc; 36-72 Vdc
Input Capacitance	2.5 $\mu$ F (typ)
Input reverse voltage protection	Fuse recommended
Input Filter	Pi
Efficiency	85% typ

#### Output

Voltage Tolerance	Output 1 and 2 - $\pm$ 1%
Line Regulation	Output 1 and 2 - $\pm$ 0.5%
Load Regulation	$\pm$ 1%
Noise/Ripple	1 % mV P-P (see note 1)
Short Circuit Protection	Continuous Current Limit
Overvoltage Protection	Zener Clamp
Transient Response	500 $\mu$ sec max (50% step load change to within 1%Vo)
Switching Frequency	200kHz
Temperature Coefficient	$\pm$ 0.02%/° C

#### Isolation

I/O isolation	1500Vdc
Isolation resistance	1 x 10 <sup>9</sup> ohms

### Special Features

- 2:1 Input range
- 1.25 x 0.80 x 0.40 Case size
- 1500Vdc Isolation

### Environmental

Operating ambient temperature  
 -40°C to +85°C (full load, no derating)  
 Baseplate: 100°C max  
 Storage temperature: -40°C to +125°C  
 Humidity: 5% to 95%(non-condensing)  
 Cooling method: Convection  
 MTBF: >1,000,000 hours (MIL-HDBK-217F)  
 Conducted EMI: EN55022, Class B  
 UL, CSA, EN60950 Certified

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AA05E

**Ordering Information**

Input Voltage	Output 1 Voltage	Output 2 Voltage	Maximum Power	Model Number
9-18VDC	3.3V @ 1.0A		3.3W	AA05E-012L-033S
9-18VDC	5V @ 1.0A		5W	AA05E-012L-050S
9-18VDC	12V @ 0.41A		5W	AA05E-012L-120S
9-18VDC	15V @ 0.33A		5W	AA05E-012L-150S
9-18VDC	+12V @ 0.20A	-12V @ 0.20A	4.8W	AA05E-012L-120D
9-18VDC	+15V @ 0.16A	-15V @ 0.16A	4.8W	AA05E-012L-150D
18-36VDC	3.3V @ 1.0A		3.3W	AA05E-024L-033S
18-36VDC	5V @ 1.0A		5W	AA05E-024L-050S
18-36VDC	12V @ 0.41A		5W	AA05E-024L-120S
18-36VDC	15V @ 0.33A		5W	AA05E-024L-150S
18-36VDC	+12V @ 0.20A	-12V @ 0.20A	4.8W	AA05E-024L-120D
18-36VDC	+15V @ 0.16A	-15V @ 0.16A	4.8W	AA05E-024L-150D
36-72VDC	3.3V @ 1.0A		3.3W	AA05E-048L-033S
36-72VDC	5V @ 1.0A		5W	AA05E-048L-050S
36-72VDC	12V @ 0.41A		5W	AA05E-048L-120S
36-72VDC	15V @ 0.33A		5W	AA05E-048L-150S
36-72VDC	+12V @ 0.20A	-12V @ 0.20A	4.8W	AA05E-048L-120D
36-72VDC	+15V @ 0.16A	-15V @ 0.16A	4.8W	AA05E-048L-150D

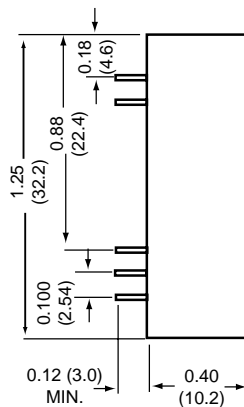
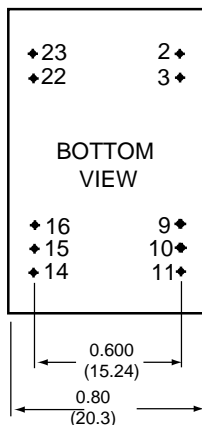
**Pin Assignments**

**Single Output**

- 2 & 3: -Vin
- 22 & 23: +Vin
- 14: +Vout
- 16: Comm
- Remaining Pins NC

**Dual Output**

- 2 & 3: -Vin
- 22 & 23: +Vin
- 14: Output 1
- 9 & 16: Comm
- 11: Output 2
- Remaining Pins NC



**Notes:**

1. 20 MHz bandwidth. An external 0.1uf ceramic capacitor is recommended to be placed from Vout to Comm.
2. All specifications are typical at nominal line, full load, and 25° C unless otherwise noted.
3. All specifications subject to change without notice.
4. Mechanical drawings are for reference only.
5. Warranty: 1 yr

Case Material: Metal (5 sides)  
 Weight: 0.5Oz/15Grams

Astec Conventional