

**Features:**

3W To 5W DIL Package  
9-18 V, 9-36 V, 18-72 V Wide Input Range  
100% Burned In  
High Efficiency  
UL94-V0 Package Material  
Custom Solutions Available  
RoHS Compliant

**Specifications:**

Output Specifications	Voltage Setpoint Accuracy	Out1 +/-2% max Out2 +/-5% max
	Temperature Coefficient Ripple & Noise (20MHz BW) <sup>1</sup> Line Regulation <sup>2</sup>	+/-0.05%/°C 100mVp-p max Out1 +/-1% max Out2 +/-3% max
Input Specifications	Load Regulation <sup>3</sup>	Out1 +/-1% max Out2 +/-5% max
	Minimum Load Short Circuit Protection Short Circuit Restart Over Load Protection Transient Response <sup>4</sup>	10% of Full Load Continuous Automatic 110%~180% 200uS max
Environmental Specifications	Input Voltage Range Input Filter Protection	2:1 or 4:1 Input Range Pi Network Fuse Recommended
	Operating Temperature Storage Temperature Case Temperature Humidity Cooling	-40°C to +71°C -55°C to +125°C +95°C max 95% max Free-Air Convectio
General Specifications	Efficiency Isolation Voltage <sup>5</sup>	70% min In to Out 1000VDC min Out1 to Out2 500VDC min
	Isolation Resistance Isolation Capacitance Switching Frequency MTBF <sup>6</sup> Weight Case Material Case Size Potting Material Conducted Emissions Radiated Emissions	109 ohms min 250pF max 50KHz min >900,000 Hours 17.5g Typ Five-Side Shielded Case 31.8mm*20.3mm*12.2mm Epoxy(UL94-V0) EN55022 Class A EN55022 Class A

All Specifications Typical at Nominal Line, Full Load, and 25 °C Unless Otherwise Noted.

**Footnotes:** <sup>1</sup> Measured with 1uF ceramic capacitor connect to the output pins. <sup>2</sup> High Line to Low Line.  
<sup>3</sup> Load Regulation is for output load current change from 20% to 100%. <sup>4</sup> 25% Step Load Change.  
<sup>5</sup> 1000 VDC for 10 seconds. <sup>6</sup> MIL-HDBK-217F @25°C , Ground Benign.

## Selection Guide 2:1 or 4:1 3W Dual Separate Output

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT <sup>1</sup> CURRENT(mA)		EFF <sup>2</sup> (%)	PACKAGE
				FULL LOAD	NO LOAD		
EP9-18-15SS100	9-18	V1:15 V V2:15 V	V1:100 V2:100	348	40	72	F
EP9-36-05SS300	9-36	V1:5 V V2:5 V	V1:300 V2:300	347	20	72	F
EP9-36-12-SS125	9-36	V1:12 V V2:12 V	V1:125 V2:125	320	20	78	F
EP9-36-15SS100	9-36	V1:15 V V2:15 V	V1:100 V2:100	320	20	78	F
EP9-36-24SS63	9-36	V1:24 V V2:24 V	V1:63 V2:63	318	20	79	F
EP18-72-05SS300	18-72	V1:5 V V2:5 V	V1:300 V2:300	169	15	74	F
EP18-72-12SS125	18-72	V1:12 V V2:12 V	V1:125 V2:125	156	15	80	F
EP18-72-15SS100	18-72	V1:15 V V2:15 V	V1:100 V2:100	156	15	80	F
EP18-72-24SS63	18-72	V1:24 V V2:24 V	V1:63 V2:63	152	15	82	F

Note: Other input to output voltages may be available. Please contact factory.

## Selection Guide 2:1 or 4:1 3W~5W Dual Separate Output

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT <sup>1</sup> CURRENT(mA)		EFF (%)	PACKAGE
				FULL LOAD	NO LOAD		
EP9-36-05SS450	9-36	V1:5 V V2:5 V	V1:450 V2:450	520	40	72	E
EP9-18-15SS100	9-18	V1:15 V V2:15 V	V1:100 V2:100	348	40	72	E
EP9-36-15SS150	9-36	V1:15 V V2:15 V	V1:150 V2:150	510	40	74	E
EP9-36-24SS95	9-36	V1:24 V V2:24 V	V1:95 V2:95	510	40	74	E

Note: Other input to output voltages may be available. Please contact factory.

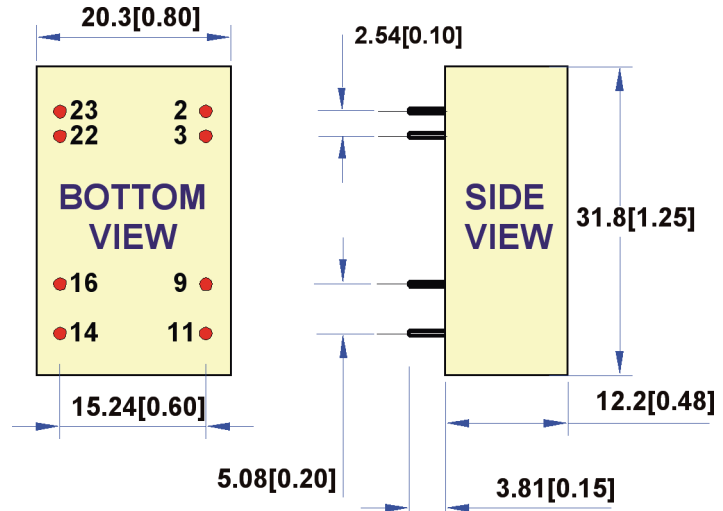
Footnotes: <sup>1</sup> Nominal Input Voltage.  
<sup>2</sup> Nominal Input Voltage, Full Load.

## Mechanical Dimensions

### Package E

PIN	SEPARATE
2 & 3	- Vin
9	-Vout2
11	+Vout2
14	+Vout1
16	-Vout1
22 & 23	+Vin

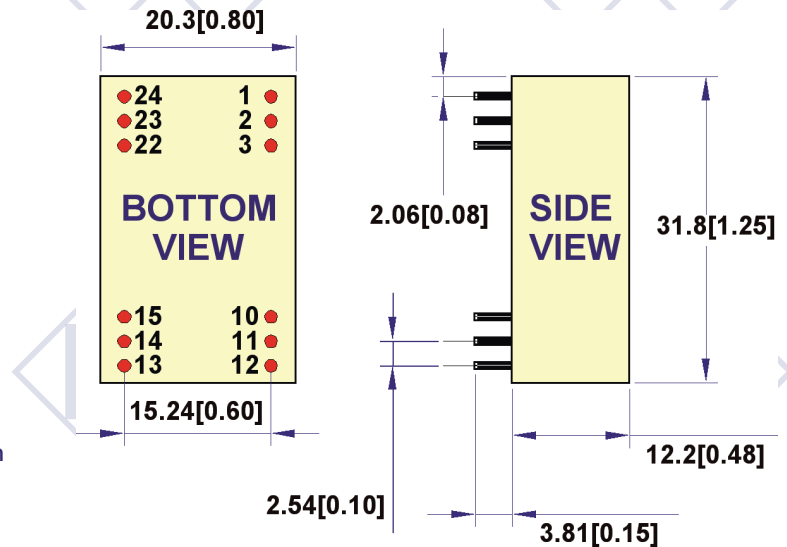
All dimensions are in mm (inches)  
Note: Pin Size is Tolerance  $0.6 \pm 0.05\text{mm}$   
Tolerance .X or .XX =  $\pm 0.5\text{mm}$



### Package F

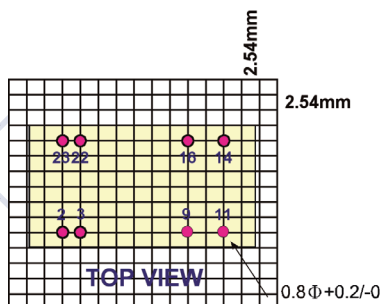
PIN	SEPARATE
1 & 24	+ Vin
2 & 23	-Vout2
3 & 22	+Vout2
10 & 15	-Vout1
11 & 14	+Vout1
12 & 13	-Vin

All dimensions are in mm (inches)  
Note: Pin Size is Tolerance  $0.6 \pm 0.05\text{mm}$   
Tolerance .X or .XX =  $\pm 0.5\text{mm}$

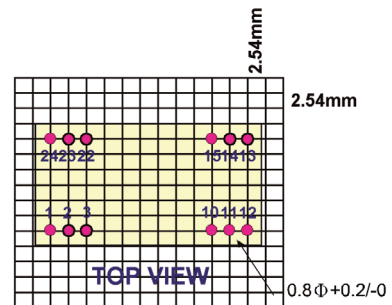


## Recommended Footprint Details

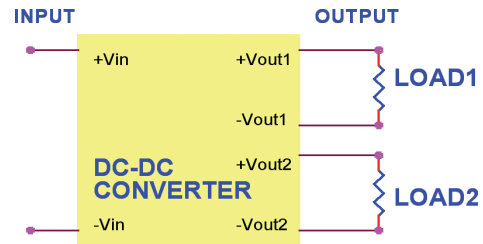
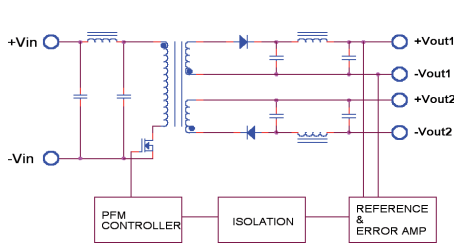
### Package E



### Package F



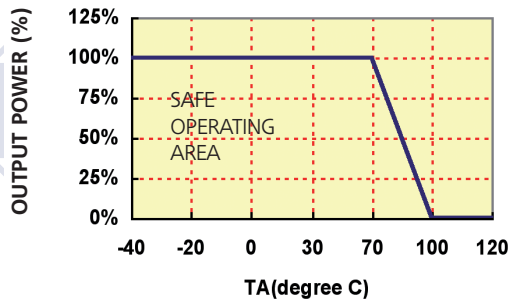
## Simplified Schematic & Typical Applications



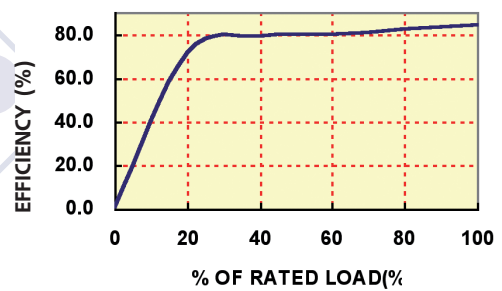
## Typical Performance Curves

Specifications typical at TA=25 °C, nominal input voltage, rated output current unless otherwise specified

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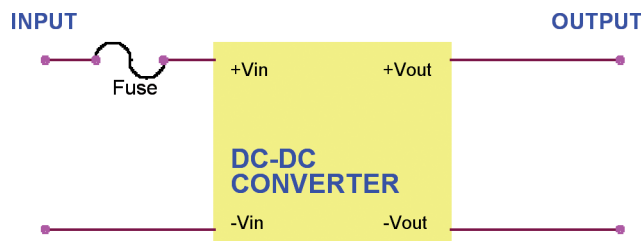


Output Load vs Efficiency



## Input Fuse Selection Guide

4.5-6.0V or 4.5-9V Input Voltage(VDC)	9-18V or 9-36V Input Voltage(VDC)	18-36V or 18-72V Input Voltage(VDC)	36-72V Input Voltage(VDC)
3000mA Slow- Blow Type	1500mA Slow- Blow Type	800mA Slow- Blow Type	400mA Slow- Blow Type



Note: Certain applications may require the installation of external fuse in front of the input.

## EP Series Application Notes

### External Capacitance Requirements:

No external capacitance is required for operation of the EP series.

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 100KHz is required.

External output capacitance is not required for operation, however it is recommended that 10uF tantalum and 0.1uF ceramic capacitance be selected for reduced system noise.

Additional output capacitance may be added for increased filtering, but should not exceed 1000uF.

We Can Offer EMC-Filter According To EN55011/22 Class B.

### Negative Outputs:

A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting –OUT as the negative output.

Spezifikationen können jederzeit ohne Vorankündigung geändert werden./Subject to change without notice.

