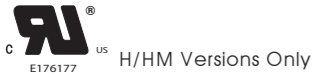
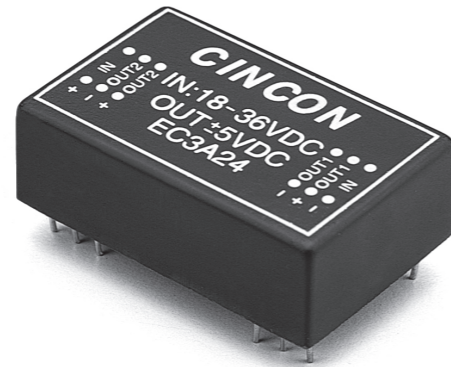


# EC3A

S E R I E S

## 3 WATT DC-DC CONVERTERS



H/HM Versions Only



### Features

- 3W Isolated Output
- Efficiency to 82%
- DIP-24 / SMD Package
- Pi Input Filter
- Regulated Outputs
- Continuous Short Circuit Protection

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	CASE
				NO LOAD	FULL LOAD		
EC3A01	4.5-6.0 VDC	5 VDC	600 mA	15 mA	800 mA	75	DIP-24
EC3A02		12 VDC	250 mA	15 mA	759 mA	79	
EC3A03		15 VDC	200 mA	15 mA	779 mA	77	
EC3A04		±5 VDC	±300 mA	25 mA	779 mA	77	
EC3A05		±12 VDC	±125 mA	25 mA	789 mA	76	
EC3A06		±15 VDC	±100 mA	25 mA	800 mA	75	
EC3A07		3.3 VDC	600 mA	15 mA	582 mA	68	
EC3A11	9-18 VDC	5 VDC	600 mA	7.5 mA	325 mA	77	DIP-24
EC3A12		12 VDC	250 mA	7.5 mA	313 mA	80	
EC3A13		15 VDC	200 mA	7.5 mA	316 mA	79	
EC3A14		±5 VDC	±300 mA	12 mA	325 mA	77	
EC3A15		±12 VDC	±125 mA	12 mA	325 mA	77	
EC3A16		±15 VDC	±100 mA	12 mA	316 mA	79	
EC3A17		3.3 VDC	600 mA	7.5 mA	229 mA	72	
EC3A21	18-36 VDC	5 VDC	600 mA	5 mA	158 mA	79	DIP-24
EC3A22		12 VDC	250 mA	5 mA	156 mA	80	
EC3A23		15 VDC	200 mA	5 mA	152 mA	82	
EC3A24		±5 VDC	±300 mA	7.5 mA	162 mA	77	
EC3A25		±12 VDC	±125 mA	7.5 mA	158 mA	79	
EC3A26		±15 VDC	±100 mA	7.5 mA	154 mA	81	
EC3A27		3.3 VDC	600 mA	5 mA	111 mA	74	
EC3A31	36-72 VDC	5 VDC	600 mA	2 mA	78 mA	79	DIP-24
EC3A32		12 VDC	250 mA	2 mA	78 mA	80	
EC3A33		15 VDC	200 mA	2 mA	78 mA	80	
EC3A34		±5 VDC	±300 mA	3 mA	80 mA	78	
EC3A35		±12 VDC	±125 mA	3 mA	80 mA	78	
EC3A36		±15 VDC	±100 mA	3 mA	80 mA	78	
EC3A37		3.3 VDC	600 mA	3 mA	57 mA	72	

NOTE: 1. Nominal Input Voltage 5, 12, 24 or 48 VDC

### Specifications

#### INPUT SPECIFICATIONS:

Input Voltage Range.....	5V.....	4.5-6V
	12V.....	9-18V
	24V.....	18-36V
	48V.....	36-72V
Input Filter.....	Pi Type	

#### OUTPUT SPECIFICATIONS:

Voltage Accuracy.....	±2.0% max.	
Voltage Balance (Dual).....	±1.0% max.	
Temperature Coefficient.....	±0.05%/°C	
Ripple and Noise, 20MHz BW.....	3.3V/5V.....	100mV p-p max.
	12V/15V.....	1% p-p max.
Short Circuit Protection.....	Continuous	
Line Regulation, Single/Dual <sup>1</sup> .....	± 0.5%	
Load Regulation, Single <sup>2</sup> .....	± 0.5%	
	Dual <sup>3</sup> .....	± 1.0%

#### GENERAL SPECIFICATIONS:

Efficiency.....	See Table	
Isolation Resistance.....	10 <sup>7</sup> ohms	
Switching Frequency.....	100KHz, min	
Operating Ambient Temperature Range.....	-25°C to +71°C	
De-rating, Above 71°C (Plastic Case).....	Linearly to Zero power at 95°C	
De-rating, Above 71°C (Copper Case).....	Linearly to Zero power at 100°C	
Case Temperature (Plastic case <sup>4</sup> ).....	95°C max	
	(Copper case <sup>4</sup> ).....	100°C max
Cooling.....	Natural Convection	
Storage Temperature Range.....	-40°C to +100°C	
Dimensions.....DIP.....	1.25 x 0.80 x 0.40 inches(31.8 x 20.3 x 10.2mm)	
	SMD.....	1.25 x 0.80 x 0.45 inches(31.8 x 20.3 x 11.4mm)
Weight.....	12.5g	

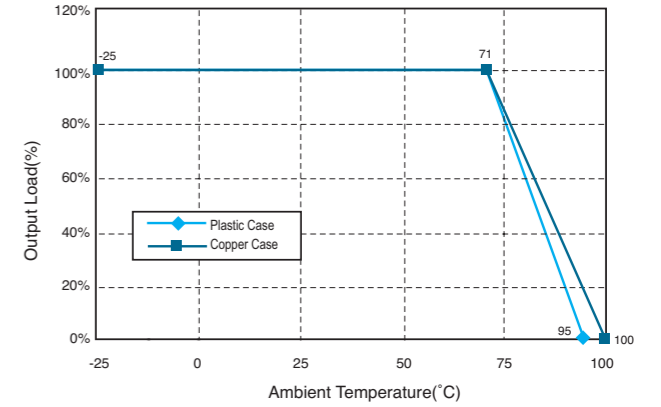
#### ISOLATION VOLTAGE:

500 VDC min.....	Standard Models	
3K VDC min <sup>4</sup> .....	Suffix "H" Models	
1.5K VDC min.....	Suffix "HM" Models	

#### CASE MATERIAL:

Standard Models.....	Non-Conductive Black Plastic	
Suffix "M" Models <sup>5</sup> .....	Black Coated Copper with Non-Conductive Base	

### EC3A Series Derating Curve



#### NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to 10% Load
3. Measured From Full Load to 1/4 Load
4. Non-Conductive Black Plastic Only
5. Suffix "S" to the Model Number with SMD packages
6. Maximum case temperature under any operating condition should not exceed 95°C (Plastic Case), 100°C (Copper Case).

### PIN CONNECTION

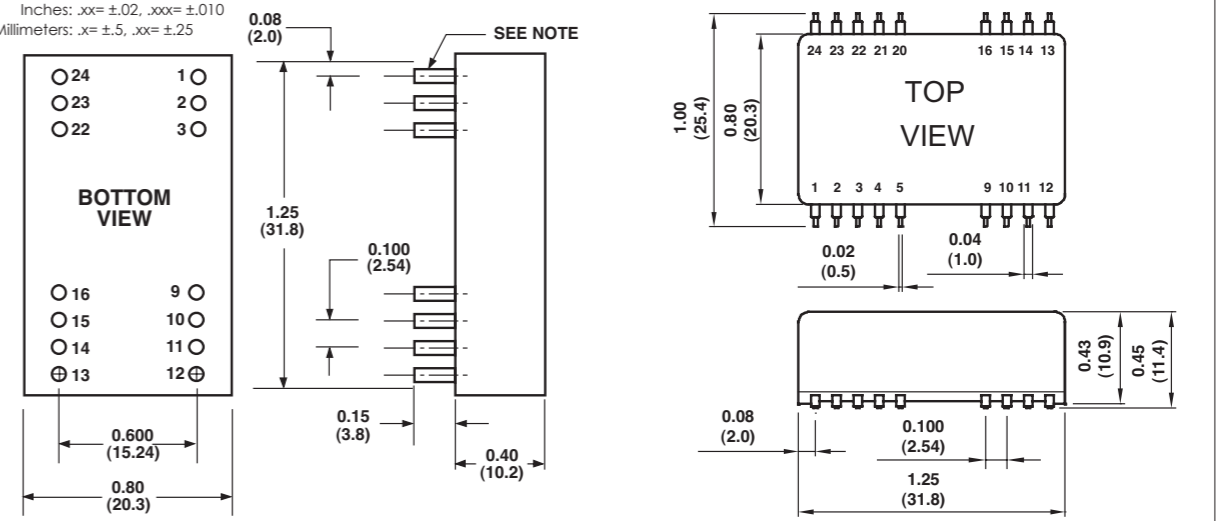
Pin	500 VDC				1.5K & 3K VDC			
	Single Output		Dual Output		Single Output		Dual Output	
	DIP	SMD	DIP	SMD	DIP	SMD	DIP	SMD
1,24	+V Input	+V Input	1,24	NP	NC	NP	NC	
2,23	NC	-V Output	2, 3	-V Input	-V Input			
3,22	NC	Common	4, 5	NP	NC	NP	NC	
4	NP	NC	NP	NC	9	NC	Common	
5	NP	NC	NP	NC	10,15	NC	NC	
9	NP	NC	NP	NC	11	NC	-V Output	
10,15	-V Output	Common	12,13	NP	NC	NP	NC	
11,14	+V Output	+V Output	14	+V Output	+V Output			
12,13	-V Input	-V Input	16	-V Output	Common			
16	NP	NC	NP	NC	20,21	NP	NC	NP
20,21	NP	NC	NP	NC	22,23	+V Input	+V Input	

\*NP-NO PIN

\*NC-NO CONNECTION WITH PIN

### CASE A

NOTE: Pin Size is 0.02" Inch (0.5mm) DIA  
All Dimensions in Inches(mm)  
Tolerance Inches: .xx= ±.02, .xxx= ±.010  
Millimeters: .x= ±.5, .xx= ±.25



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