

EC2AN

1.0 TO 1.5 WATT DC-DC CONVERTERS



Features

- 24-Pin DIP Package
- Pi Input Filter
- Unregulated Outputs
- Low Ripple and Noise
- 70% Efficiency

| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | INPUT CURRENT | | CASE |
|--------------|---------------|----------------|----------------|---------------|-----------|------|
| | | | | NO LOAD | FULL LOAD | |
| EC2A01N | | 5 VDC | 220mA | 115 mA | 330 mA | |
| EC2A02N | | 12 VDC | 125 mA | 115 mA | 420 mA | |
| EC2A03N | 5 VDC | 15 VDC | 100 mA | 115 mA | 420 mA | A |
| EC2A04N | | ±12 VDC | ±62 mA | 115 mA | 420 mA | |
| EC2A05N | | ±15 VDC | ±50 mA | 115 mA | 420 mA | |
| EC2A11N | | 5 VDC | 220 mA | 45 mA | 120 mA | |
| EC2A12N | | 12 VDC | 125 mA | 45 mA | 165 mA | |
| EC2A13N | 12 VDC | 15 VDC | 100 mA | 45 mA | 165 mA | A |
| EC2A14N | | ±12 VDC | ±62 mA | 45 mA | 165 mA | |
| EC2A15N | | ±15 VDC | ±50 mA | 45 mA | 165 mA | |

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range.....±10%
 Input Filter.....Pi Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy.....±3.0% max.
 Ripple and Noise, 20MHz BW¹.....100mV p-p max.
 Short Circuit Protection.....Momentary
 Line Regulation².....±1.2%
 Load Regulation³, EC2A01N.....±8.0%
 All Other Models.....±6.0%

GENERAL SPECIFICATIONS:

Efficiency.....60%~80%
 Isolation Capacitance.....30pF
 Isolation Resistance.....10⁹ohms
 Switching Frequency.....20KHz, min
 Operating Temperature Range.....-25°C to + 71°C
 Case Temperature (Plastic case).....95°C max.
 (Copper case).....100°C max.
 Cooling.....Free-Air Convection
 Storage Temperature Range.....-40°C to + 100°C
 Dimensions1.25 x 0.8 x 0.4 inches
 (31.8 x 20.3 x 10.2mm)
 Weight.....11.8g

ISOLATION VOLTAGE:

500 VDC min.....Standard Models
 3K VDC min⁴.....Suffix "H" Models

CASE MATERIAL:

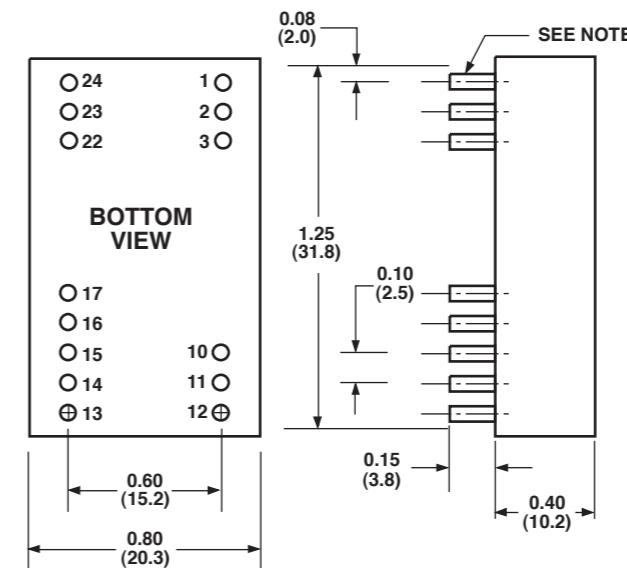
Standard Models.....Non-Conductive Black Plastic
 Suffix "M" Models.....Black Coated Copper with Non-Conductive Base

NOTE:

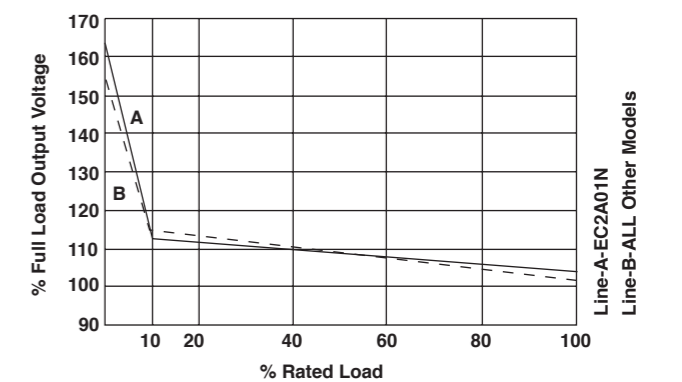
1. 15 µF 35V, Tantalum Capacitor Across Each Output.
2. Line regulation is per 1.0% change in input voltage.
3. Load regulation is for load change from 100% to 20% See graph of load regulation.
4. Suffix "HM" 1.5K VDC Instead of 3K VDC Isolation

CASE A

NOTE: Pin Size is 0.02" Inch (0.5mm) DIA
 All Dimensions in Inches(mm)
 Tolerance .xx= ±0.2, .xxx= ±0.10



Typical Load Regulation



PIN CONNECTION

| Pin | 500 VDC | | Pin | 1.5K & 3K VDC | |
|-----|---------------|-------------|----------|---------------|-------------|
| | Single Output | Dual Output | | Single Output | Dual Output |
| 1 | 24 | +V Input | 1 | 2,3 | +V Input |
| 2 | 23 | NC | 22,23,24 | | -V Input |
| 3 | 22 | NC | 10 | 11 | NP |
| 10 | | -V Output | 12 | | -V Output |
| 11 | | +V Output | 13 | | +V Output |
| 12 | | -V Input | 14 | | NP |
| 13 | | -V Input | 15 | | NP |
| 14 | | +V Output | 16 | | NP |
| 15 | | -V Output | 17 | | +TP |

*NP-NO PIN *TP-TEST POINT
 *NC-NO CONNECTION WITH PIN *GO-GROUND