

## Excellent Integrated System Limited

Stocking Distributor

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[TDK-Lambda Americas, Inc.](#)

[ICH12012A007V-007-R](#)

For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)



Industrial



Test



Comm



Broadcast

## 85W, 12A Non-isolated SMT Point of Load



| Features                                    | Benefits                     |
|---|------------------------------|
| • DOSA Compatible Footprint                 | • Ideal for Second Sourcing  |
| • Constant Switching Frequency              | • Predictable EMI            |
| • No external Loop Tuning Components Needed | • Less Board Area Needed     |
| • Excellent Transient response              | • For Sensitive Applications |

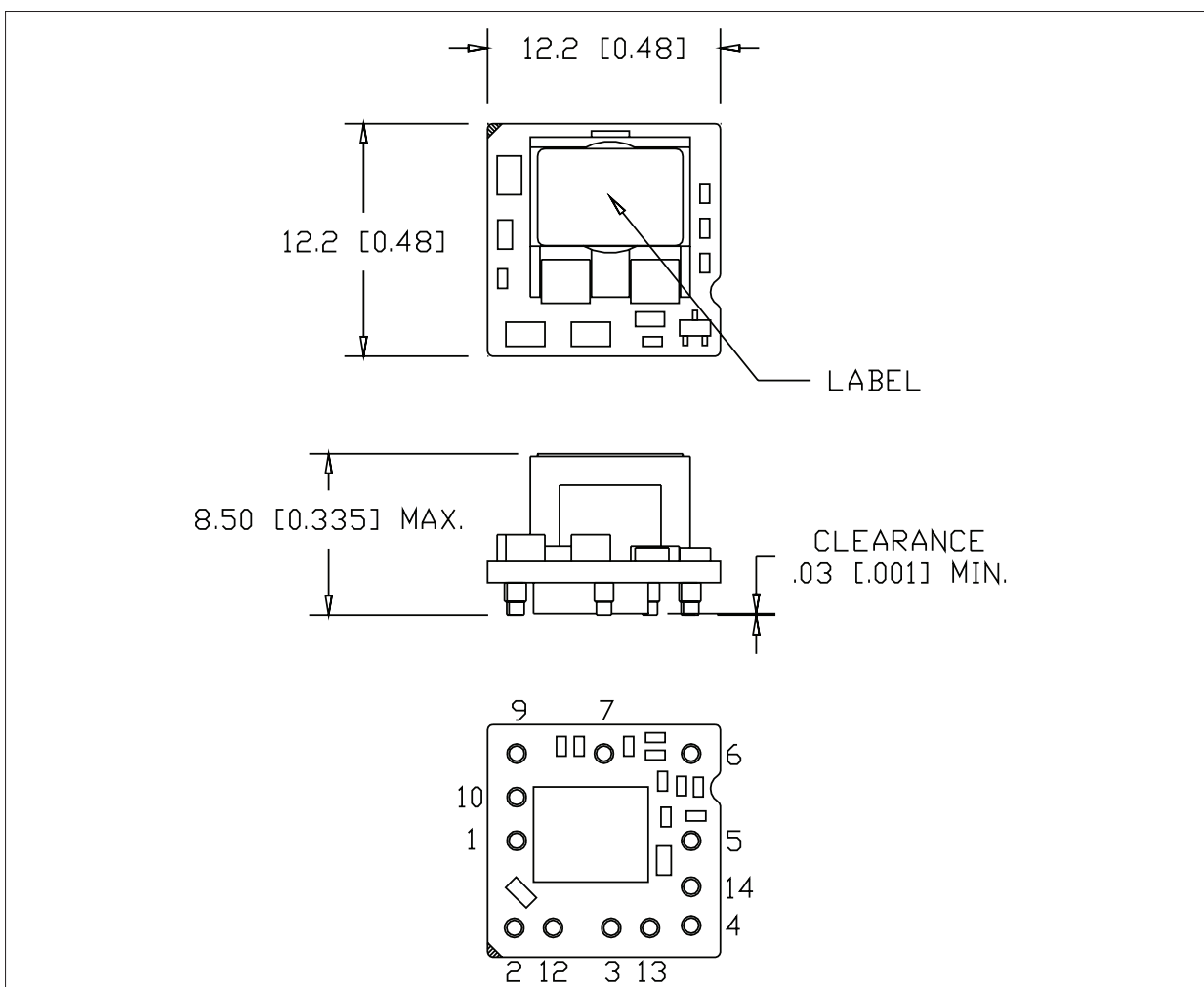
| Specification             |        |   |
|---------------------------|--------|---|
| Model                     | iCH    |   |
| DC Output Voltage         | V      | 0.7 - 8.5   |
| DC Input Voltage          | V      | 4.5 - 14  |
| Efficiency                | %      | 88.5 - 97   |
| Output Voltage Tolerance  | %      | ±3  |
| Switching Frequency       | kHz    | 500   |
| Line Regulation           | mV     | 5   |
| Load Regulation           | mV     | 6   |
| External Load Capacitance | uF     | 200 - 2000  |
| Output Ripple and Noise   | mVpp   | 15  |
| Overcurrent Protection    | A      | 22A typical   |
| Remote On / Off           | -      | Positive Logic (For Negative Logic Contact Factory)   |
| Remote Sense              | -      | (+) Sense, compensating up to 0.5V                    |
| Power Good                | -      | Yes, Low on fail                                      |
| Operating Temperature     | °C     | -40°C to 115°C (see thermal data on website)          |
| Storage Temperature       | °C     | -55°C to 125°C  |
| Safety Agency Approvals   | -      | IEC/EN 60950-1, UL/CSA 60950-1, CE mark (LVD & RoHS2) |
| Weight                    | g / oz | 2.5g / 0.088 oz                                       |
| Size (LxWxH)              | mm     | 12.2 x 12.2 x 8.5                                     |
| Warranty                  | yrs    | 3   |

**Model Selector**

| Input Model         | Input Voltage (V) | Output Current (A) | Output Voltage (V) | Positive Logic On/Off | Negative Logic On/Off |
|---------------------|-------------------|--------------------|--------------------|-----------------------|-----------------------|
| iCH12012A007V-007-R | 4.5 - 14          | 12                 | 0.7 - 8.5          | -                     | yes                   |
| iCH12012A007V-006-R | 4.5 - 14          | 12                 | 0.7 - 8.5          | yes                   | -                     |

Preferred

**Outline Drawing iCH Series**



**Pin Assignment**

| PIN | Function  | PIN | Function      |
|-----|-----------|-----|---------------|
| 1   | ON / OFF  | 8   | Not Fitted    |
| 2   | VIN       | 9   | Not Connected |
| 3   | GND       | 10  | PWR GOOD      |
| 4   | VOUT      | 11  | Not Fitted    |
| 5   | SENSE (+) | 12  | VIN           |
| 6   | TRIM      | 13  | GND           |
| 7   | GND       | 14  | VOUT          |

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