

## 6A Non-isolated SMT Point Of Load

### Features

- ◆ DOSA Compatible Footprint
- ◆ Surface Mountable
- ◆ Constant Switching Frequency
- ◆ Edge Plated Castellations (EPC)
  - Inspectable Solder Joints
- ◆ No external loop tuning components needed
- ◆ Excellent Transient Response

### Key Market Segments & Applications



### Specifications

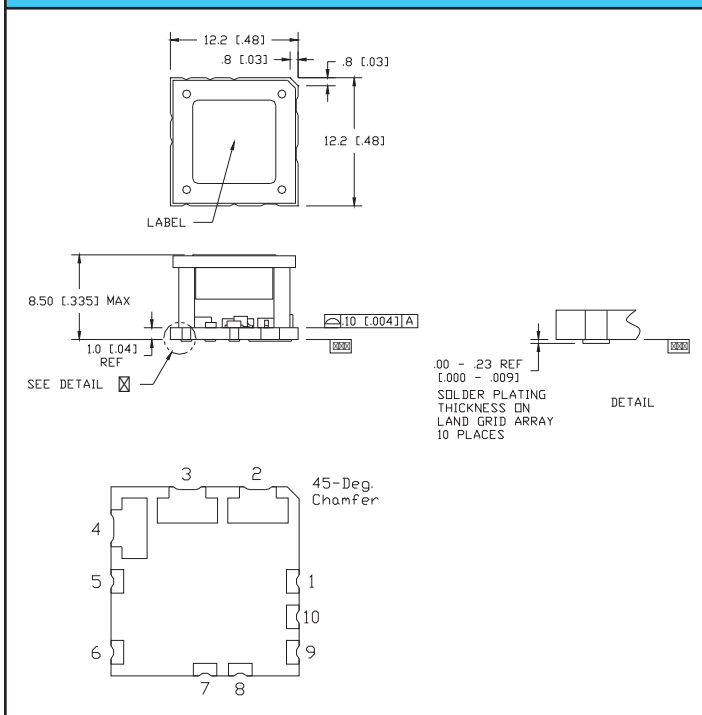
| Model                     |          | iCG05                                                                    | iCG12            |
|---------------------------|----------|--------------------------------------------------------------------------|------------------|
| DC Output Voltage         | V        | 0.6 - 3.63                                                               | 0.7 - 5.5        |
| DC Input Voltage          | V        | 2.4 - 5.5                                                                | 4.5 - 14         |
| Efficiency                | %        | 84 - 93                                                                  | 84 - 94          |
| Output Voltage Tolerance  | %        | ±3                                                                       |                  |
| Switching Frequency       | kHz      | 600                                                                      |                  |
| Line Regulation           | mV       | 3                                                                        | 3                |
| Load Regulation           | mV       | 6                                                                        | 6                |
| External Load Capacitance | uF       | 47 - 1000                                                                |                  |
| Output Ripple and Noise   | mVpp     | 15                                                                       | 15               |
| Overcurrent Protection    | A        | Hiccup Type                                                              |                  |
| Remote On / Off           | -        | Negative Logic (For Positive Logic Contact Factory)                      |                  |
| Remote Sense              | -        | (+) Sense, compensating up to 0.5V                                       |                  |
| Power Good                | -        | Not available                                                            | Yes, Low on fail |
| Operating Temp            | °C       | -40 to 115 (see thermal data on website)                                 |                  |
| Storage Temperature       | °C       | -55 to 125                                                               |                  |
| Safety Agency Approvals   | -        | UL60950-1, CSA 22.2 No.60950-1-03; VDE CB scheme (IEC60950-1, EN60950-1) |                  |
| Weight                    | g / oz   | 3g / 0.106 oz                                                            |                  |
| Size (LxWxH)              | mm / in. | 12.2 x 12.2 x 8.5 / 0.48 x 0.48 x 0.335                                  |                  |
| Warranty                  | yrs      | 3 years                                                                  |                  |

## Model Selector

| Model               | Input Voltage (V) | Output Current (A) | Output Voltage (V) | Positive Logic On/Off | Negative Logic On/Off | Sequencing | EPC Solder Bumping |
|---------------------|-------------------|--------------------|--------------------|-----------------------|-----------------------|------------|--------------------|
| iCG05006A006V-003-R | 2.4 - 5.5         | 6                  | 0.6 - 3.63         | -                     | yes                   | -          | yes*               |
| iCG12006A007V-003-R | 4.5 - 14          | 6                  | 0.7 - 5.5          | -                     | yes                   | -          | yes*               |

\*For LGA solder bumping specify -007-R model suffix

## Outline Drawing



## Pinout

| PIN | Function | PIN | Function      |
|-----|----------|-----|---------------|
| 1   | ON / OFF | 6   | TRIM          |
| 2   | VIN      | 7   | GND           |
| 3   | GND      | 8   | no connection |
| 4   | VOUT     | 9   | reserved      |
| 5   | SENSE    | 10  | PWR GOOD      |

## Other Industrial Products

|               |                                                            |
|---------------|------------------------------------------------------------|
| CC-E          | 1.5 - 30W 5, 12, 24 or 48V input isolated DC-DC converters |
| PX            | 10 - 60W 12, 24 or 48V input isolated DC-DC converters     |
| iAF, iBF, iCF | 3 - 20A DOSA2 non isolated DC-DC converters                |

For Additional Information, please visit  
[us.tdk-lambda.com/lp/products/icg-series.htm](http://us.tdk-lambda.com/lp/products/icg-series.htm)



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