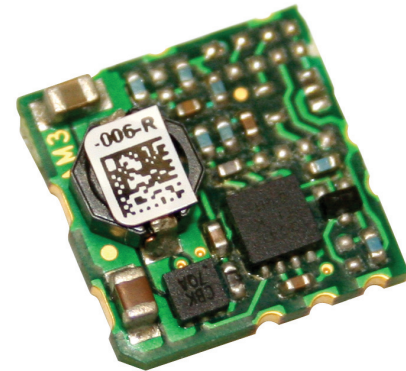


## 24.7W (4.5A), 16.5W (3A), Non-isolated SMT Point Of Load

### 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



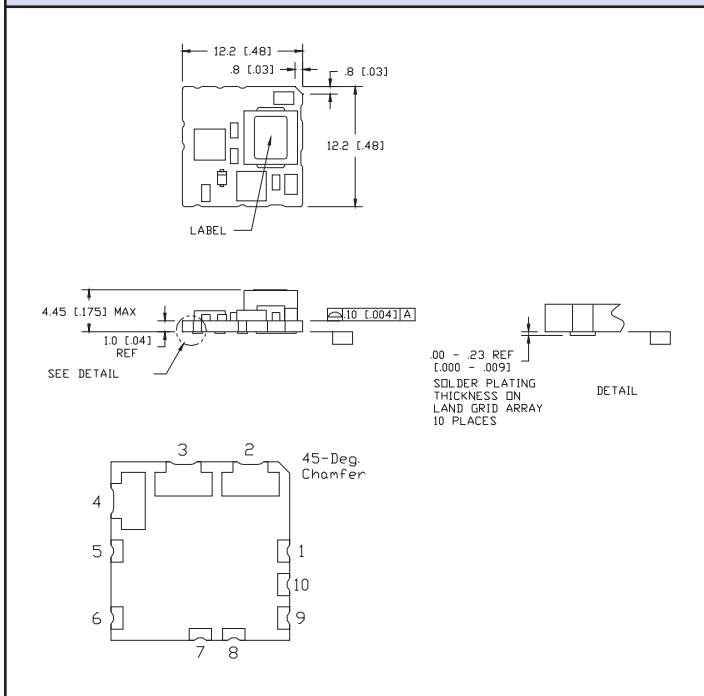
| Specifications            |          |                                                     |  |                  |
|---------------------------|----------|-----------------------------------------------------|--|------------------|
| Model                     |          | iCF05                                               |  | iCF12            |
| DC Output Voltage         | V        | 0.6 - 3.63                                          |  | 0.7 - 5.5        |
| DC Input Voltage          | V        | 2.4 - 5.5                                           |  | 4.5 - 14         |
| Efficiency                | %        | 82 - 92                                             |  | 85 - 93.5        |
| 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     | 25                                                  |  | 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   | -        | IEC/UL/CSA/EN62368-1, 60950-1, CE Mark              |  |                  |
| Weight                    | g / oz   | 1.5g / 0.53 oz                                      |  |                  |
| Size (LxWxH)              | mm / in. | 12.2 x 12.2 x 4.45 / 0.48 x 0.48 x 0.175            |  |                  |
| 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 | Solder Bumping |
|---------------------|-------------------|--------------------|--------------------|-----------------------|-----------------------|------------|----------------|
| iCF05003A006V-001-R | 2.4 - 5.5         | 3                  | 0.60 - 3.63        | -                     | X                     | X          | EPC            |
| iCF05003A006V-003-R | 2.4 - 5.5         | 3                  | 0.60 - 3.63        | -                     | X                     | -          | EPC            |
| iCF05003A006V-006-R | 2.4 - 5.5         | 3                  | 0.60 - 3.63        | X                     | -                     | -          | LGA            |
| iCF05003A006V-007-R | 2.4 - 5.5         | 3                  | 0.60 - 3.63        | -                     | X                     | -          | LGA            |
| iCF12003A007V-003-R | 4.5 - 14          | 3                  | 0.70 - 5.5         | -                     | X                     | -          | EPC            |
| iCF12003A007V-007-R | 4.5 - 14          | 3                  | 0.70 - 5.5         | -                     | X                     | -          | LGA            |
| iCF12005A007V-006-R | 4.5 - 14          | 5                  | 0.70 - 5.5         | X                     | -                     | -          | LGA            |
| iCF12005A007V-007-R | 4.5 - 14          | 5                  | 0.70 - 5.5         | -                     | X                     | -          | LGA            |

## Preferred Model

## Outline Drawing (EPC Type)



## Pinout

| PIN | Function | PIN | Function      |
|-----|----------|-----|---------------|
| 1   | ON / OFF | 6   | TRIM          |
| 2   | VIN      | 7   | GND           |
| 3   | GND      | 8   | no connection |
| 4   | VOUT     | 9   | no connection |
| 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, iCG | 6 - 20A DOSA2 non isolated DC-DC converters                |

For Additional Information, please visit  
<https://product.tdk.com/en/power/>

