

250W, 9-40V Input Non-isolated DC-DC Converter

| Features | Benefits |
|--------------------------------------|---------------------------------|
| • 250W 14A in a 1/16th brick package | • Very High Power Density |
| • Very high Efficiency up to 98% | • Easier Thermal Management |
| • Wide Output Adjustment 3.3 to 24V | • Address Multiple Applications |
| • Minimal External Components Needed | • Less Board Area Required |



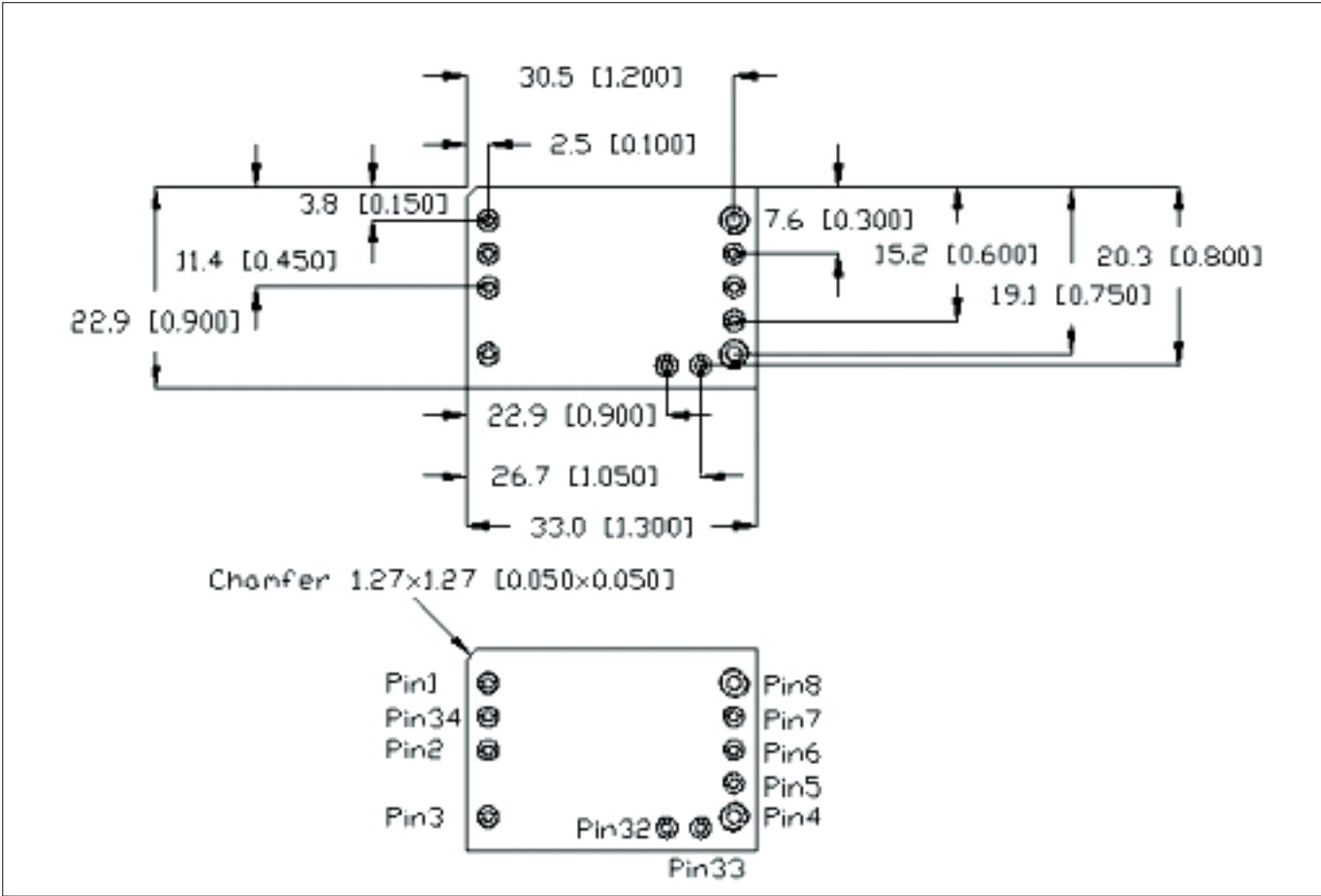
| Specification | | |
|---------------------------|------|---|
| Model | i6A | |
| DC Output Voltage | V | 3.3 - 24 |
| DC Input Voltage | V | 9 - 40 (Turn on at 10V or greater) |
| Efficiency | % | 92.5 - 98 |
| Output Voltage Tolerance | % | ±4 |
| Switching Frequency | kHz | 400 |
| Line Regulation | % | 0.3 |
| Load Regulation | % | 1 |
| External Load Capacitance | uF | 0 - 2000 |
| Output Ripple and Noise | mVpp | 20 |
| Overcurrent Protection | A | 22A typical |
| Remote On / Off | - | Negative Logic (For Positive Logic Contact Factory) |
| Remote Sense | - | (+) Sense, compensating up to 0.5% of output voltage |
| Power Good | - | Optional (Full Feature Version) |
| Sync & Sequencing | - | Optional (Full Feature Version) |
| Operating Temperature | °C | -40°C to 125°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 | 15g |
| Size (LxWxH) | mm | 33 x 22.9 x 12.7 |
| Warranty | yrs | 3 |

Model Selector

| Input Model | Input Voltage (V) | Output Current (A) | Output Voltage (V) | Positive Logic On/Off | Negative Logic On/Off | Full Feature |
|---------------------|-------------------|--------------------|--------------------|-----------------------|-----------------------|--------------|
| i6A24014A033V-000-R | 9 - 40 | 14 | 3.3 - 24 | Yes | - | - |
| i6A24014A033V-001-R | 9 - 40 | 14 | 3.3 - 24 | - | Yes | - |
| i6A24014A033V-002-R | 9 - 40 | 14 | 3.3 - 24 | Yes | - | Yes |
| i6A24014A033V-003-R | 9 - 40 | 14 | 3.3 - 24 | - | Yes | Yes |

Preferred

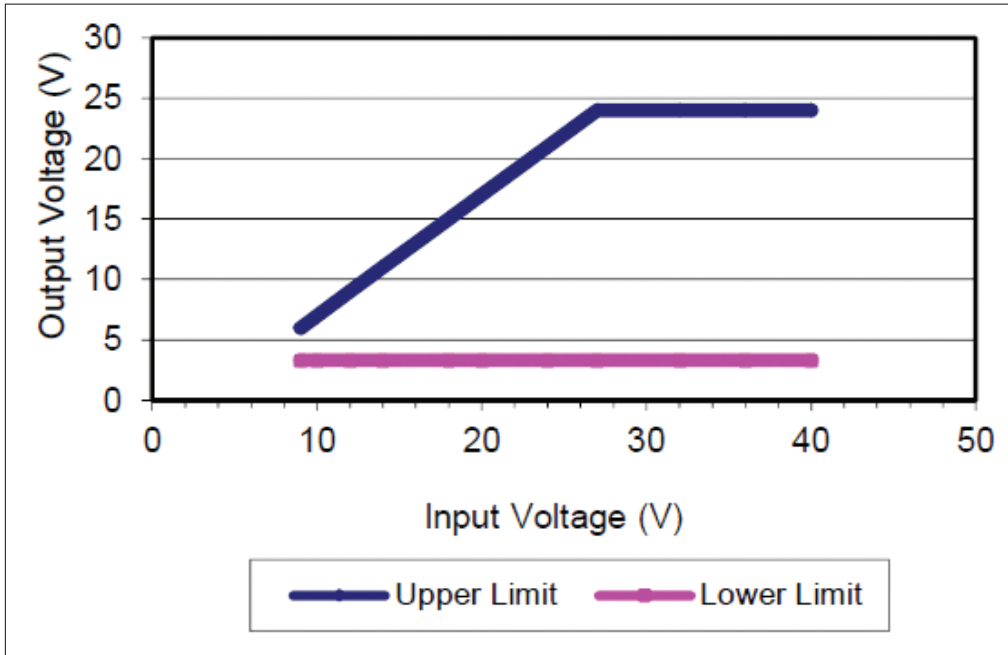
Outline Drawing i6A Series



Pin Assignment

| PIN | Function | PIN | Function |
|-----|-------------------|-----|---------------|
| 1 | VIN (+) | 7 | SENSE (+) |
| 2 | ON / OFF | 8 | VOUT (+) |
| 3 | VIN (-) | 32 | Sync (Option) |
| 4 | VOUT (-) | 33 | MS (Option) |
| 5 | PWR GOOD (Option) | 34 | SEQ (Option) |
| 6 | TRIM | | |

Output voltage vs input voltage operating range i6A Series



Note: Output voltage cannot exceed input voltage (see graph above)



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