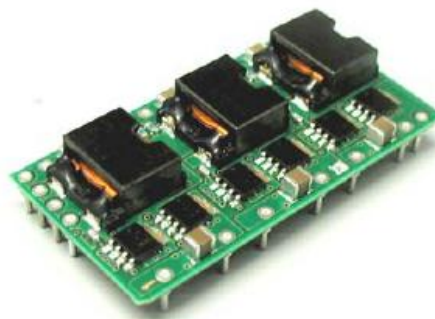


DC-DC Converter Short Form

MPDTH**040WAS/WAH (50A/60A output POL-Alliance product)

Features

- Point-of-Load Alliance product
- Up to 50A/60A output current
- Wide-Output Voltage Adjust (0.8-2.5V or 0.8-5.5V)
- High efficiency up to 93% or 95% TYP (@5Vin 2.5V/45Aout) or (@12Vin 3.3V/35Aout)
- Wide Operating Temp - 40 °C to + 85 °C
- Open frame TH or SMT termination
- Auto-Track™ Sequencing
- Margin Up/Down Controls
- Pre-Biased start-up
- Output Over-Current Protection
- Output Voltage Sense
- ON/OFF Inhibit
- Under-Voltage Lockout
- Safety Agency Approvals: UL/cUL 60950, EN60950, VDE

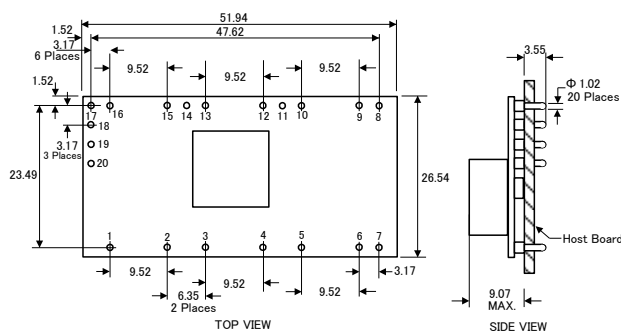
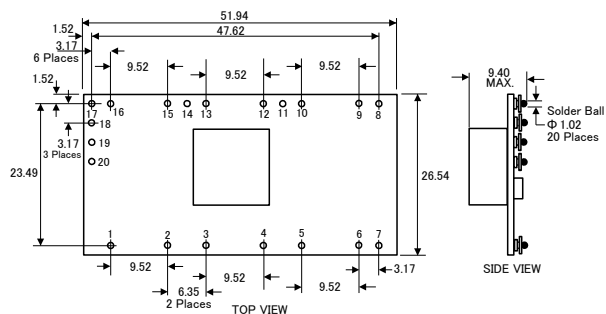


Ordering Information

| Input Voltage | Output Voltage | Output Current | Model Number |
|---------------|----------------|----------------|---------------------|
| 2.95V to 4.5V | 0.8V to 1.65V | 60A | MPDTH04040WA(S)/(H) |
| 4.5V to 5.5V | 0.8V to 2.5V | 60A | MPDTH04040WA(S)/(H) |
| 8V to 14V | 0.8V to 5.5V | 50A | MPDTH12040WA(S)/(H) |

OPTIONS: "WAS" -- SMT termination, "WAH" – TH termination

Dimensions



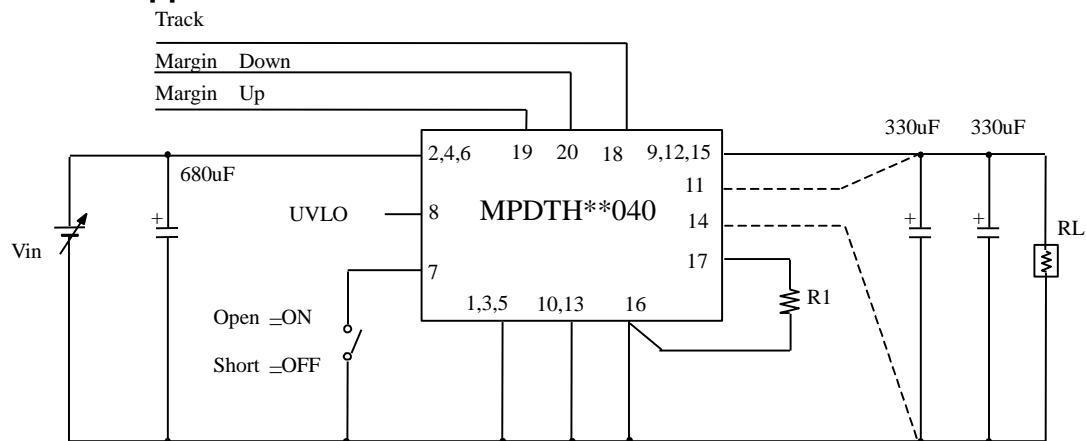
| Pin No. | Signal | Pin No. | Signal |
|---------|----------|---------|-----------|
| 1. | GND | 11. | +Sense |
| 2. | Vin | 12. | Vout |
| 3. | GND | 13. | GND |
| 4. | Vin | 14. | -Sense |
| 5. | GND | 15. | Vout |
| 6. | Vin | 16. | GND |
| 7. | Inhibit | 17. | VoAdjust |
| 8. | UVLOprog | 18. | Track |
| 9. | Vout | 19. | Margin Up |
| 10. | GND | 20. | Margin |

Down

Note:

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2. This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

Standard Application



Output Voltage Adjustment

$$R1 = 10k \cdot \frac{0.8V}{V_{out} - 0.8V} - 2.49k \quad : \text{MPDTH04040}$$

$$R1 = 10k \cdot \frac{0.8V}{V_{out} - 0.8V} - 1.696k \quad : \text{MPDTH12040}$$

General Specifications

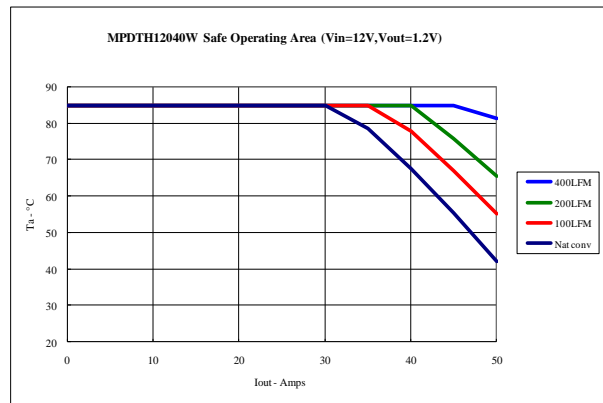
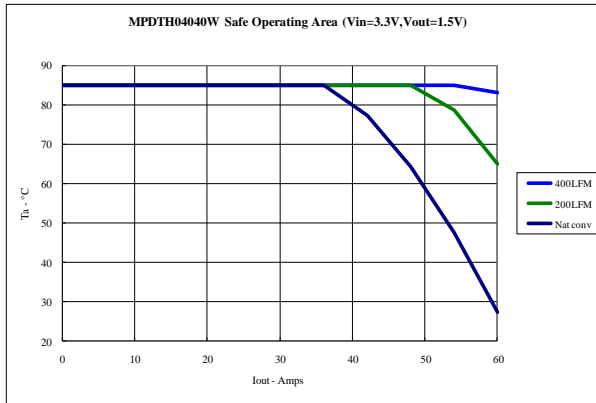
(Ta=25°C)

| Item | Symbol | Condition | Parts Number | Min. | Typ. | Max. | Unit |
|------------------------|--------|--------------------------------|--------------|------|------|------|-------|
| Input voltage | Vin | | MPDTH04040 | 2.95 | — | 5.5 | V |
| | | | MPDTH12040 | 8.0 | 12.0 | 14.0 | |
| Output voltage | Vout | Vin=2.95V to 4.5V | MPDTH04040 | 0.8 | — | 1.65 | V |
| | | Vin=4.5V to 5.5V | | 0.8 | — | 2.5 | |
| | | Vin=8.0V to 14.0V | MPDTH12040 | 0.8 | — | 5.5 | |
| Total output variation | Regtot | Rset 1% tolerance, ±100ppm/°C | | — | — | ±3 | %Vo |
| Output current | Iout | MPDTH04040 | | 0 | — | 60 | A |
| | | MPDTH12040 | | 0 | — | 50 | |
| Ripple voltage | Vrip | Vin=5.0V, Vout=2.5V, Iout=60A | | — | 15 | — | mVp-p |
| | | Vin=12.0V, Vout=3.3V, Iout=50A | | — | 15 | — | |
| Efficiency | Eff | Vin=5.0V, Vout=2.5V, Iout=45A | | — | 93 | — | % |
| | | Vin=12.0V, Vout=3.3V, Iout=35A | | — | 95 | — | |

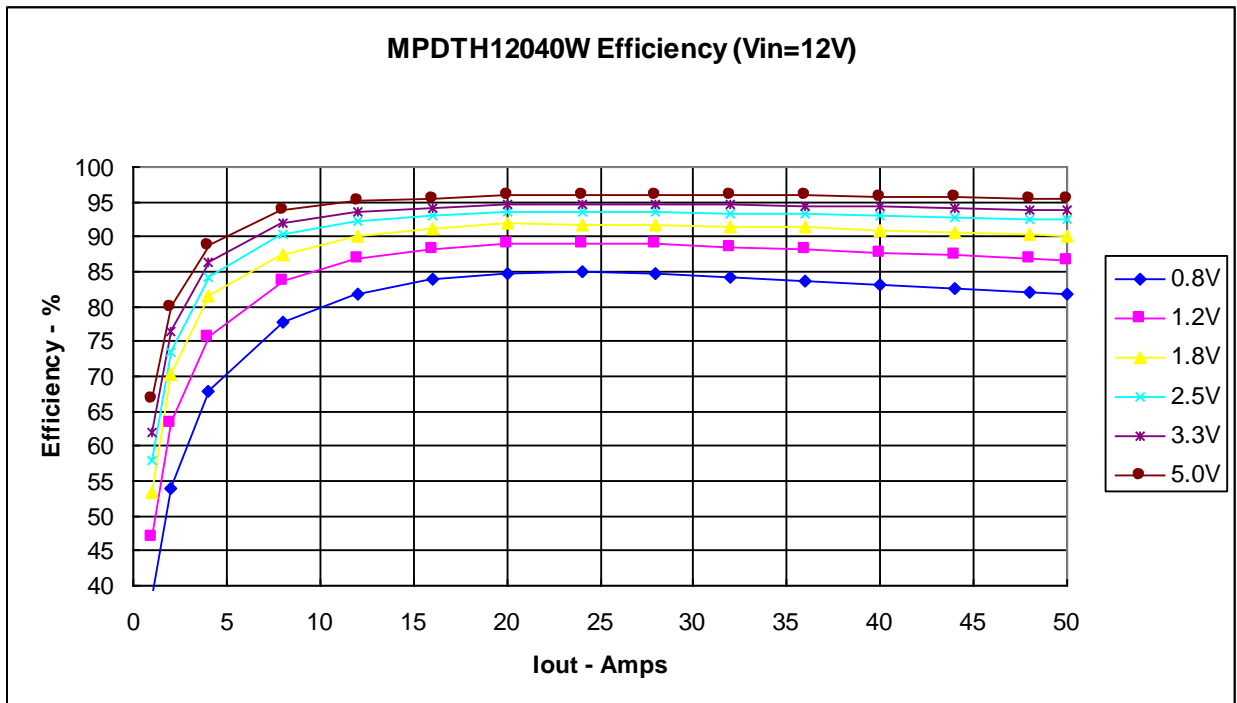
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Thermal Derating



Conversion Efficiency



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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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