Test Data
For PMP9415
2/10/2015

TEXAS INSTRUMENTS
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1. Board Picture

Board Size: 60mm*18mm
2. Design Specifications

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<table>
<thead>
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<tbody>
<tr>
<td><strong>Vin Min.</strong></td>
<td>33Vdc</td>
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<tr>
<td><strong>Vin Max.</strong></td>
<td>57Vdc</td>
</tr>
<tr>
<td><strong>Vout</strong></td>
<td>12Vdc</td>
</tr>
<tr>
<td><strong>Iout</strong></td>
<td>1A</td>
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</tbody>
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3. TYPICAL PERFORMANCE

3.1 EFFICIENCY

![Efficiency Curve](Fig1)
3.2 Load regulation

![Load regulation Curve](image)

3.3 Load Transient Response:
Ch1=V_{o_{ac}}(500mV/DIV), CH4=I_{o}(0.5A/DIV)

![Transient Response](image)
Fig 4 Transient Response, Vin=48V Io=50%~100%~50%

Fig 5 Transient Response, Vin=57V Io=50%~100%~50%
3.4 Power Up
Ch1=V₀(5V/DIV), Ch3=V_{in}(20V/DIV), CH4=I₀(1A/div)

Fig 6 Vin=33V Io=1A Power up

Fig 7 Vin=48V Io=1A Power up
3.5 Ripple

Ch1=Vo_ac (100mV/DIV) with 20 MHz Bandwidth
Fig 10 VIN=48V, Io=1A,

Fig 11 VIN=57V, Io=1A,
3.6 SW and Diode Stress

3.6.1 SW voltage and current

CH1=SW Voltage(20V/div), CH4=SW current(1A/div)

Fig 12 VIN=33VDC, Io=1A
Fig 13 VIN=48VDC, Io=1A

Fig 14 VIN=57VDC, Io=1A
3.6.2 Diode voltage

Ch1=Diode Voltage(20V/Div)

Fig 15 VIN=33V, Io=1A

Fig 16 VIN=48V, Io=1A
3.7 Short

Ch1=Vo(5V/DIV), Ch2=Vin(20V/Div) Ch4=Io(2A/Div)
3.8 thermal Picture

Figure 19 48Vin, 12V 1A thermal in roomtemp
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