

Name,Value,Category,Description

Vout,12 V,System Information,Operational Output Voltage

IC Tolerance,5 mV,IC,IC Feedback Tolerance

Cin IRMS,2.52 A,Capacitor,Input capacitor RMS ripple current

Cin Pd,9.5 mW,Capacitor,Input capacitor power dissipation

Cout IRMS,420.76 mA,Capacitor,Output capacitor RMS ripple current

Cout Pd,118.03 μ W,Capacitor,Output capacitor power dissipation

L Ipp,1.46 A,Inductor,Peak-to-peak inductor ripple current

L Pd,679.78 mW,Inductor,Inductor power dissipation

Ipp percentage,29.15%,Inductor,Inductor ripple current percentage (with respect to average inductor current)

Duty Cycle,51.33%,System Information,Duty cycle

Efficiency,91.6%,System Information,Steady state efficiency

Frequency,494.58 kHz,System Information,Switching frequency

IC Tj,136.57 $^{\circ}$ C,IC,IC junction temperature

IC Pd,4.84 W,IC,IC power dissipation

Pout,60 W,System Information,Total output power

Iin Avg,2.73 A,IC,Average input current

IC Ipk,5.73 A,IC,Peak switch current in IC

Mode,CCM,System Information,Conduction Mode

Vout p-p,12.05 mV,System Information,Peak-to-peak output ripple voltage

Vin p-p,476.44 mV,System Information,Peak-to-peak input voltage

Phase Marg,54.44 $^{\circ}$,System Information,Bode Plot Phase Margin

Cross Freq,36.69 kHz,System Information,Bode plot crossover frequency

Low Freq Gain,49.29 dB,System Information,Gain at 1Hz

Gain Marg,-17.67 dB,System Information,Bode Plot Gain Margin

ICThetaJA Effective,22 $^{\circ}$ C/W,IC,Effective IC Junction-to-Ambient Thermal Resistance

Vout Ripple requirement used for Cout calculations,1.00%,System Information,Custom maximum output ripple

Overshoot Value,69.74 mV,System Information,Theoretical Vout Overshoot Value

Undershoot Value,152.29 mV,System Information,Theoretical Vout Undershoot Value

Vout transient requirement used for Cout calculations,3.00%,System Information,Custom Transient voltage

Iout transient step used for Cout calculations,2.5 A,System Information,Custom Transient current step requirement

Inductor ripple current requirement used for Inductor selection,30.00%,System Information,Custom Inductor ripple current

Total Pd,5.54 W,Power,Total Power Dissipation

FootPrint,NA,System Information,Total Foot Print Area of BOM components

Vin,24 V,System Information,Vin operating point

Iout,5 A,System Information,Iout operating point

Cin Pd,9.5 mW,Power,Input capacitor power dissipation

Cout Pd,118.03 μ W,Power,Output capacitor power dissipation

L Pd,679.78 mW,Power,Inductor power dissipation

IC Pd,4.84 W,Power,IC power dissipation

Vout Actual,11.99 V,System Information,Vout Actual calculated based on selected voltage divider resistors

Vout Tolerance,2.52%,System Information,Vout Tolerance based on IC Tolerance (no load) and voltage divider tolerance

Total BOM,NA,System Information,Total BOM Cost

BOM Count,13 ,System Information,Total Design BOM count

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ripple requirement that was used for Cout selection(% of Vout).

percentage change requirement that was used for Cout selection (% of Vout).

ripple current requirement that was used for Cout selection (A).

ripple current (% of average inductor current) requirement used for Inductor selection

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consider resistors if applicable