

Know How Guide

PAM2401

1.0MHZ STEP-UP DC-DC CONVERTER



Features	Benefits
<ul style="list-style-type: none"> • True Output Disconnect 	<ul style="list-style-type: none"> • To avoid leakage power on output
<ul style="list-style-type: none"> • Programmable Over Current Protection 	<ul style="list-style-type: none"> • To prevent the damage from the high current
<ul style="list-style-type: none"> • Power Good Indicator 	<ul style="list-style-type: none"> • Support system power sequence
<ul style="list-style-type: none"> • Pulse Sipping Mode at Light Load Operation 	<ul style="list-style-type: none"> • Increasing efficiency at light load
<ul style="list-style-type: none"> • Fixed Frequency Operation Up to 1MHz 	<ul style="list-style-type: none"> • Reduce external components sizes
<ul style="list-style-type: none"> • Integrated OVP/OTP 	<ul style="list-style-type: none"> • To make sure a stable output voltage, V_o is over 5.7V or once junction temperature exceeds 160°C (Typ.), PAM2401 will turn-off output.

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Functional Description

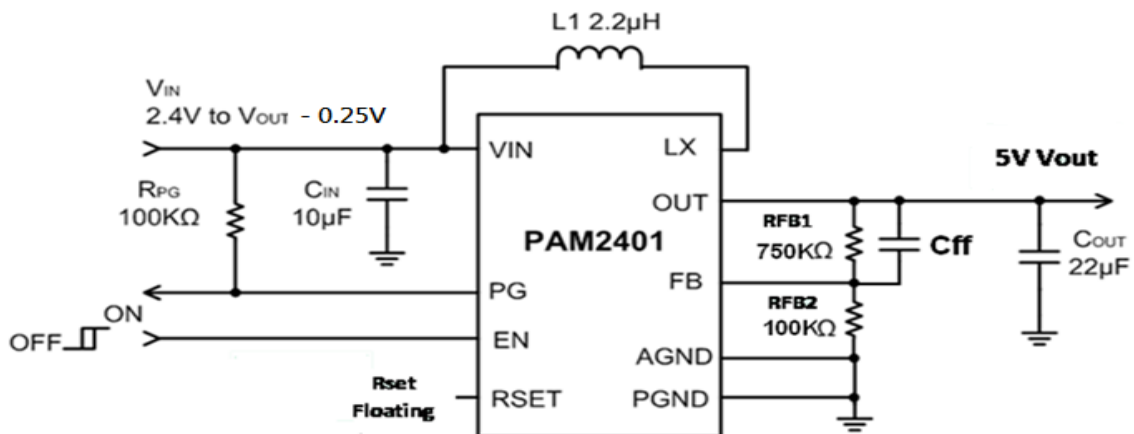
The PAM2401 is a high efficiency, current mode, fixed frequency, step-up DC-DC converter with true output disconnect and in-rush current limiting. The device includes one 0.10 Ω N-channel MOSFET switch and one 0.15 Ω P-channel synchronous rectifier. This product has the ability to simply program the output voltage from 2.5V to 5V. The switching frequency is 1.0MHz, programmable current limit set by an external resistor from 1.0A to 3.0A with internal soft-start.

The PAM2401 automatically enters into PSM to improve the efficiency which maximizes battery life in portable applications.

Quiescent current is only 150 μ A during Pulse Skip Mode operation, maximizing battery life in portable applications. Other features include : <1 μ A shutdown, anti-ringing control, Hiccup mode at short protection, over voltage protection and over temperature protection.

The PAM2401 is available in MSOP-8 and U-DFN3030-12 packages

Application Information



Opportunity qualification

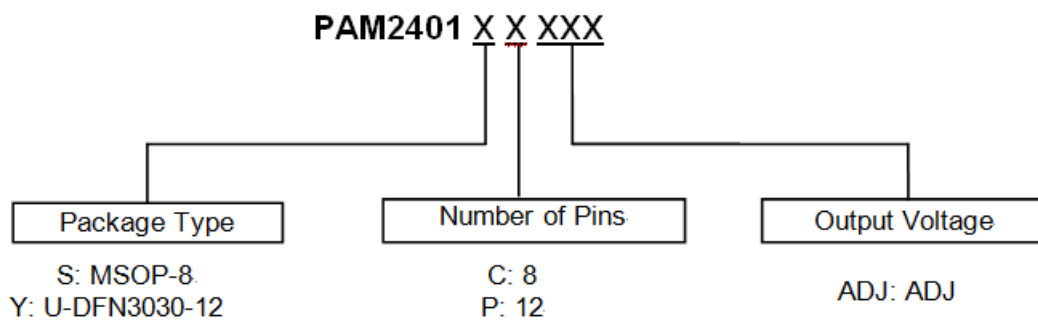
1. Step up converter requirement
2. Low Voltage input and Vout under 5.5V
3. High current application and care board space

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Pricing and Ordering Information

Device	Package	Price @ 5k	Reel size	Quantity
PAM2401SCADJ	MSOP-8	0.3	13"	2,500
PAM2401YPADJ	U-DFN3030-12	0.33	13	3,000



Support

Datasheet – Located on Diodes Web –

Samples – available through

Samples@diodes.com