

UNREGULATED 2.25 WATT DUAL-IN-LINE DC/DC CONVERTER

LP02U

FEATURES

- 24-PIN DIP PACKAGE
- INTERNAL FILTERING
- LOW OUTPUT NOISE
- TEMPERATURE RANGE: -25°C TO +70°C
- SURFACE MOUNT CONSTRUCTION

APPLICATIONS

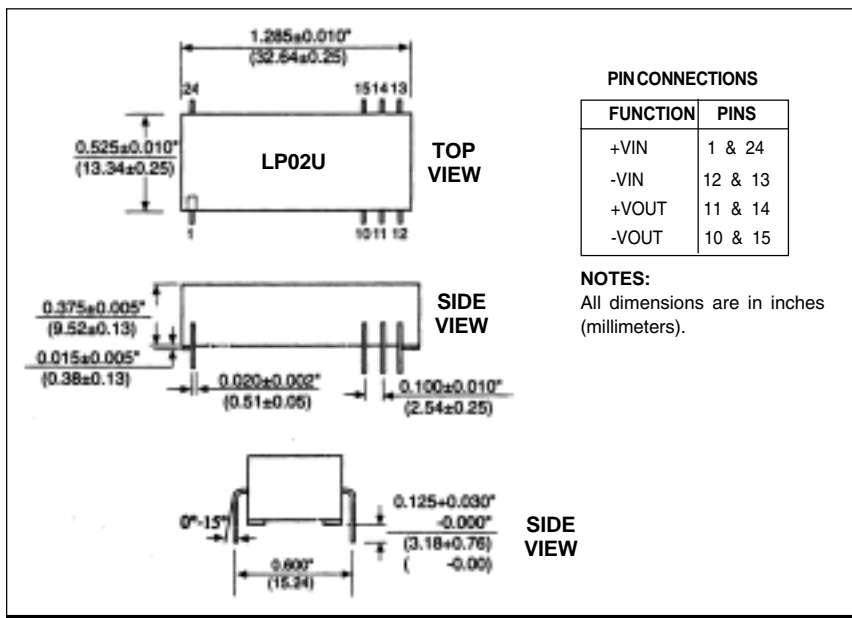
- ETHERNET ADAPTER CARDS
- CHEAPERNET LOCAL AREA NETWORKS (LANs)

DESCRIPTION

The LP02U Series is designed specifically for low-cost Local Area Network applications. It provides isolated power for LAN transceiver devices. The product operates from either 5 or 12 volts input voltage and supplies an isolated -9 volts output.

The LP02U Series is housed in an industry standard 24-pin dual-in-line (DIP) package to permit upgrading of existing systems. A 100kHz push-pull oscillator is used in the input stage, complementing the units high efficiency and low noise characteristics.

MECHANICAL PACKAGE/PINOUT "K"



The LP02U Series offers the user a cost effective solution without sacrificing reliability. A highly automated manufacturing process is employed in which all components are surface mounted and reflow-soldered, eliminating any hand-soldering during construction. This dramatically reduces unit variation and improves reliability.

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ELECTRICAL SPECIFICATIONS

Specifications typical at $T_A = +25^\circ\text{C}$, nominal input voltage, rated output current unless otherwise specified.

Model	Nominal Input Voltage (Vdc)	Rated Output Voltage (Vdc)	Rated Output Current (mA)	Input Current		Efficiency (%)
				No Load (mA)	Rated Load (mA)	
LP02U05S09	5	9	250	50	568	80
LP02U12S09	12	9	250	30	240	77

NOTE: Other input to output voltage options may be available. Please consult factory.

COMMON SPECIFICATIONS

Specifications typical at $T_A = +25^\circ\text{C}$, nominal input voltage, rated output current unless otherwise specified.

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
INPUT					
Voltage Range	LP02U05S09 LP02U12S09	4.75 11.4	5 12	5.25 12.6	Vdc Vdc
Voltage Rise Time					
ISOLATION					
Rated Voltage		500			Vrms
Test Voltage	60Hz, 10 Seconds	500			Vpk
Resistance			1		GW
Capacitance			30		pF
OUTPUT					
Rated Power			2.25		W
Voltage Setpoint Accuracy	$I_{LOAD} = 200\text{mA}$		± 3		%
Ripple & Noise	BW = DC to 10MHz BW = DC to 2MHz		30 3		mVp-p mVrms
Line Regulation	High Line to Low Line		1.15		%/%
Load Regulation	$25\text{mA} \leq I_{LOAD} \leq 200\text{mA}$		± 10		%
GENERAL					
Switching Frequency			100		KHz
Package Weight			6		g
MTTF per MIL-HDBK-217, Rev. E *	Circuit Stress Method $T_A = +25^\circ\text{C}$ $T_A = +70^\circ\text{C}$		3.0		MHr
Ground Benign			700		KHr
TEMPERATURE					
Specification		-25	+25	+70	$^\circ\text{C}$
Operation		-55		+85	$^\circ\text{C}$
Storage		-55		+100	$^\circ\text{C}$

ABSOLUTE MAXIMUM RATINGS

Output Short-Circuit Duration.....	1 second
Internal Power Dissipation	1W
Lead Temperature (soldering, 10 seconds max).....	+300 $^\circ\text{C}$

ORDERING INFORMATION

Device Family _____ **LP02U** **xyzz** **K** **/H**

Indicates Lan Enabled 2 Watt Regulated Unit

Model Number _____

Selected from Table of Electrical Characteristics

Where:

- xx = Input Voltage
- y = Number of Outputs (Single "S")
- zz = Output Voltage

Package Option _____

Screening Option _____

LOAD PERFORMANCE CURVE

