

## **LP02UC Series**

Unregulated 2.25 Watt

## Dual-In-Line DC/DC Converter

### **FEATURES**

- RoHs compliant
- 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**

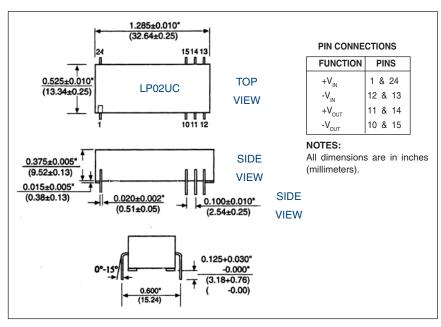
The LP02UC Series is designed specifically for low-cost Local Area Network applications. It provides isolated power for LAN transceiver devices. The product operates from either 5 or 12 volts input voltage and supplies an isolated -9 volts output.

The LPO2UC 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 unit's high efficiency and low noise characteristics.

The LPO2UC 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.

## **MECHANICAL: PACKAGE/PINOUT "K"**



#### THROUGH-HOLE SOLDERING INFORMATION

These devices are intended for wave soldering or manual soldering. They are not intended to be subject to surface mount processes under any circumstances.

The normal wave soldering process can be used with these devices where the device is subjected to a maximum wave temperature of 260°C for a period of no more than 10 seconds. Within this time and temperature range, the integrity of the device's plastic body will not be compromised and internal temperatures within the converter will not exceed 175°C. Care should be taken to control manual soldering limits identical to that of wave soldering.

#### **ELECTRICAL SPECIFICATIONS**

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

	Nominal Input	Rated Output	Rated Output	Input Current		
Model	Voltage (VDC)	Voltage (VDC)	Current (mA)	No Load (mA)	Rated Load (mA)	Efficiency (%)
LP02U05S09C	5	9	250	50	568	80
LP02U12S09C	12	9	250	30	240	77

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







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#### COMMON SPECIFICATIONS

Dual-In-Line DC/DC Converter

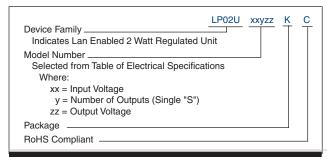
Specifications typical at T<sub>A</sub> = +25°C, nominal input voltage, rated output current unless otherwise specified.

PARAMETER	CONDITIONS	MIN	ТҮР	MAX	UNITS
INPUT Voltage Range Voltage Rise Time	LP02U05S09C LP02U12S09C	4.75 11.4	5 12	5.25 12.6	VDC VDC
ISOLATION Rated Voltage Test Voltage Resistance Capacitance	60Hz, 10 Seconds	500 500	1 30		Vrms Vpk GΩ pF
OUTPUT Rated Power Voltage Setpoint Accuracy Ripple & Noise Line Regulation Load Regulation	I <sub>LOAD</sub> =200mA BW = DC to 10MHz BW =DC to 2MHz High Line to Low Line 25mA≤I <sub>LOAD</sub> ≤200mA		2.25 ±3 30 3 1.15 ±10		W % mVp-p mVrms %/% %
GENERAL Switching Frequency Package Weight MTTF per MIL-HDBK-217E* Ground Benign	Circuit Stress Method $T_A = +25^{\circ}C$ $T_A = +70^{\circ}C$		100 6 3.0 700		kHz g MHr kHr
TEMPERATURE Specification Operation Storage		-25 -55 -55	+25	+70 +85 +100	°C °C

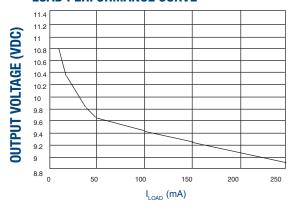
## **ABSOLUTE MAXUMUM RATINGS**

Output Short-Circuit Duration	1 second
Internal Power Dissipation	1W

#### ORDERING INFORMATION



#### LOAD PERFORMANCE CURVE



## muRata Ps Murata Power Solutions

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