



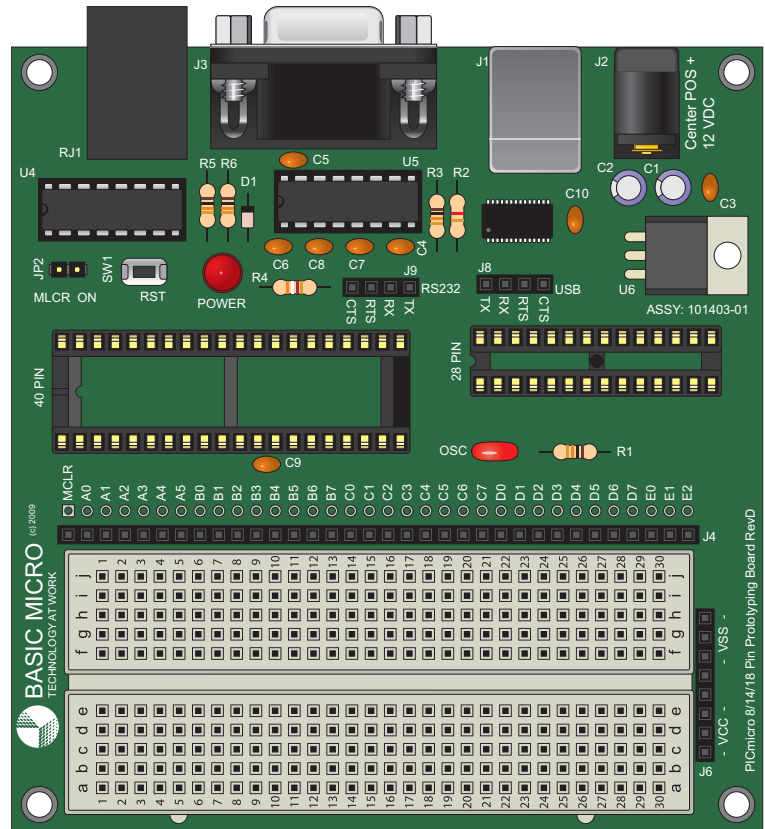
BASIC MICRO

TECHNOLOGY AT WORK

**2840 Development Board
Data Sheet**

Feature Overview:

- PICKit2 and PICKit3 Compatible
- Includes 28 and 40 Pin Sockets
- Solderless Prototyping Board
- 2.1mm Power Connector
- USB Connector Using FTDI
- RS232 DB9 connector with MAX232
- RJ11 Programming Header
- Power LED
- Reset Switch
- Built in 5v Power Circuit
- Easy I/O Access
- Auto Isolation Circuit for Programming
- Socketed Resonator

**Basic Description**

The 2840 Development Board was designed for quick and easy prototyping with the Microchip family of 28 or 40 pin PICmicro MCUs®. With in circuit programming and our unique PICmicro isolation circuit you can test your software/hardware design on-the-fly without the need for cable or chip swapping! The auto isolation circuit completely isolates the PICmicro programming pins from your circuit during programming. This allows you to rapidly test code changes without the need for disconnecting anything from the PICmicro I/O pins.

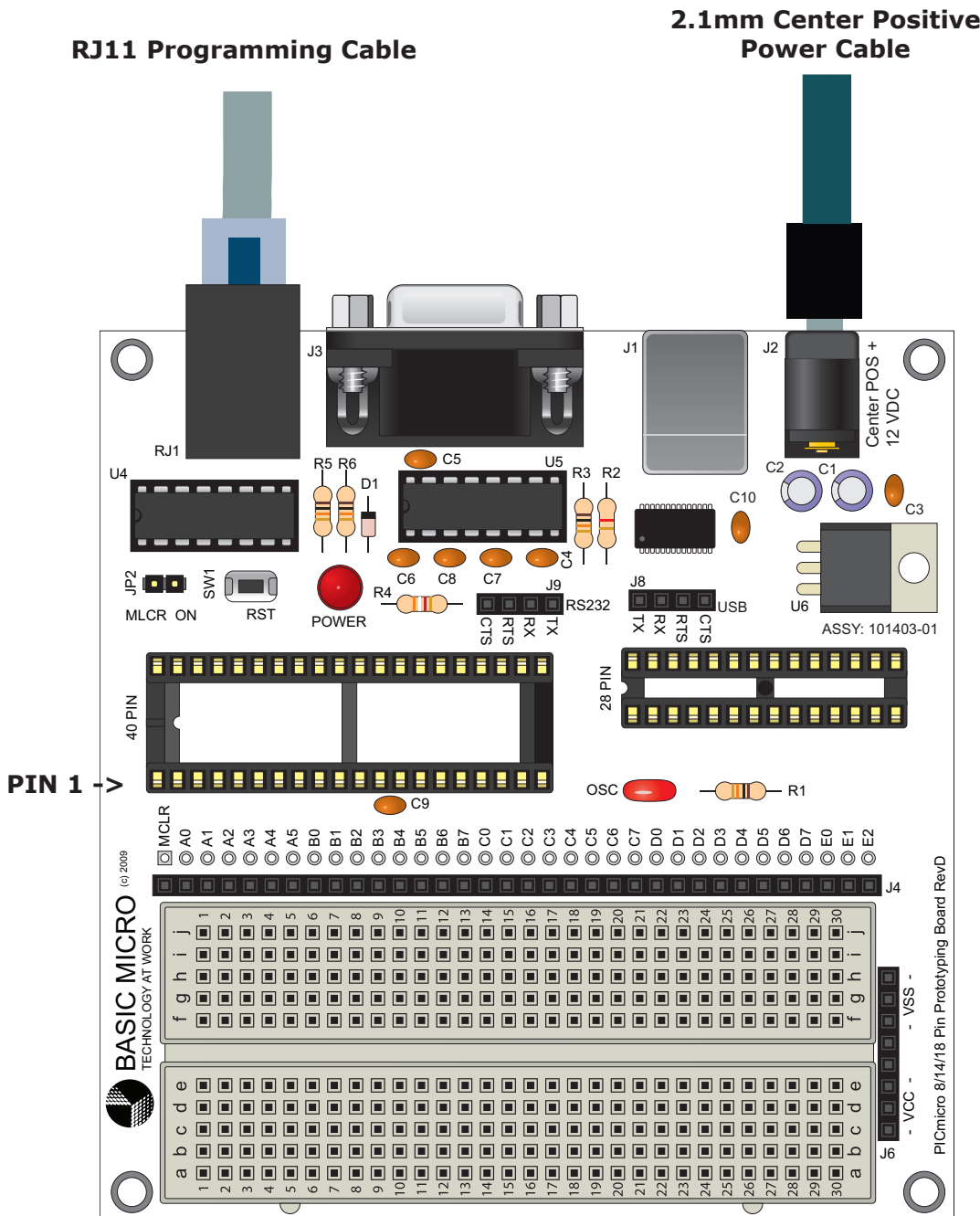
The USB function uses the popular FTDI USB to Serial chip. The board also includes a DB9 connector with MAX232 for easy access to RS232 communications. RS232 and USB pins are accessible from an on board female header.

2840 Development Board Programming Interface

The auto isolation circuit is automatic, no user interaction is required. The development board is set-up to be programmed with the ISP-PRO or Microchip family of programmers (PICKit2, PICKit3, ICD)

Connect the RJ11 cable from your programmer to the development board. Then connect your power supply as shown. Make sure the power supply is a 9VDC or less with center positive and a 2.1mm barrel connector. Also make sure JP2 (MCLR) jumper is installed. This is required to program the PICmicro.

When installing a PICmicro in the on board sockets, align pin one of the PICmicro to the sockets pin one. See illustration below for pin one reference.

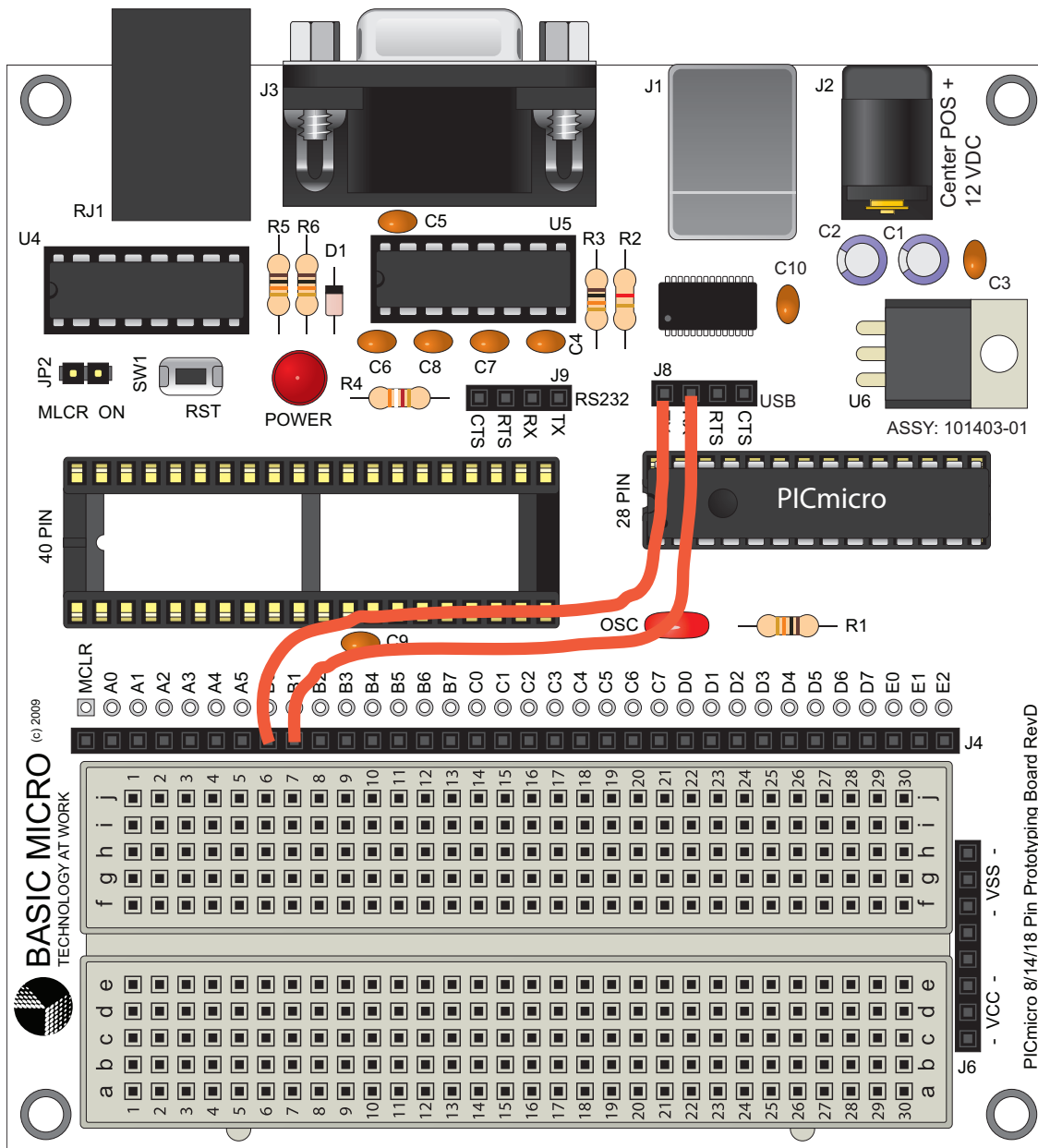


USB Driver Installation

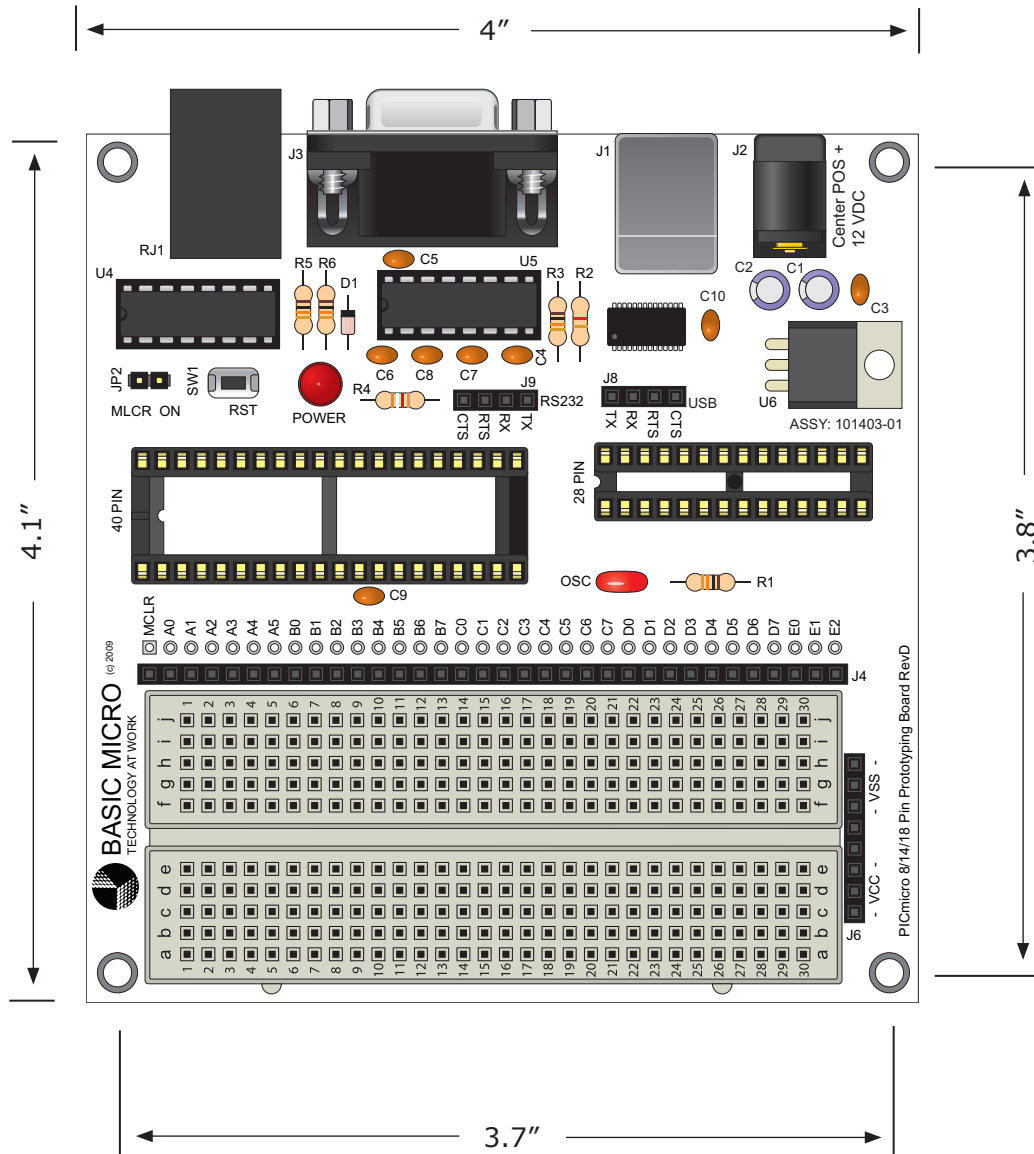
The on board USB is an FTDI. You can use the standard FTDI driver or use the Basic Micro driver that is pre-configured for the most typical setups. The Basic Micro driver can be download from the Basic Micro website under downloads.

2840 Development Board Demo

The following illustration demonstrates one method using the on board USB and a PICmicro. You can use the UART built into most PICmicros. Refer to the data sheet to determine which pins to use. Wire the PICmicro RX pin to TX of the header and the RX pin on the header to the TX pin of the PICmicro.



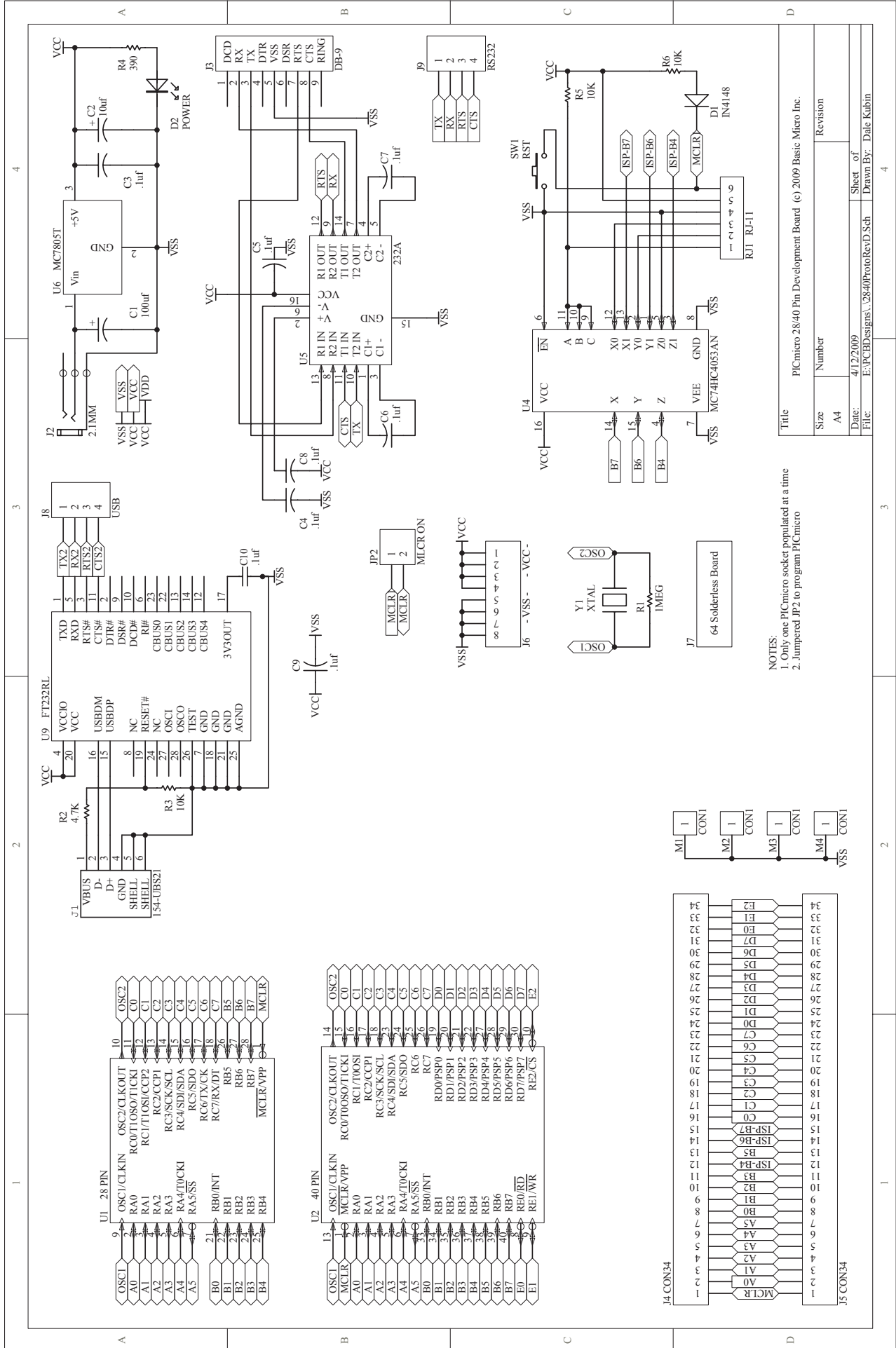
Dimensions:



Board Edge: 4"W X 4.1"L
Hole Pattern: 0.125D, 3.7"W x 3.8"H

Electrical Characteristics

Characteristic	Rating	Min	Max
VCC Input	VDC	6	12
Current Draw	mA	30	1000
I/O Voltages	VDC	0	5
Tempature Range	C	-40	+125



NOTES:
 1. Only one PICmicro socket populated at a time
 2. Jumpered JP2 to program PICmicro

Title		PICmicro 28/40 Pin Development Board (c) 2009 Basic Micro Inc.	
Size	Number	Revision	
A4			
Date:	4/12/2009		Sheet of
File:	E:\PCBdesigns\28-40ProtoRevD.Sch		Drawn By: Dale Kubin

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Discussion List

A web based discussion board is maintained at <http://www.basicmicro.com>.

Technical Support

Technical support is made available by sending an email to support@basicmicro.com. All email will be answered within 48 hours. All general syntax and programming questions, unless deemed to be a software issue, will be referred to the on-line discussion forums.