SP322 FAQ

Sipex Part: SP322
Date: Jul 24-07

Question:

The online data sheet for SP332 does not mention if it's fail-safe (SP522CA is) for the receivers. Is it fail-safe?

Answer:

The SP332 does have failsafe but works best for open line situations without termination.

Question:

While shut down, are all the pins going to high impedance?

Answer:

All pins are Hi Z when in shutdown. Beware of Output Tri-state Leakage: 10 µA, 0.4V ≤ V_{OUT} ≤ +2.4V.

Question:

Other than that each driver/receiver cannot be individually enabled / disabled (which was the case for SP522CA), is there anything else I should be aware of when replacing the SP522CA by SP332?

Answer:

The drivers and receivers cannot be individually shutdown. You could use the SP334 if this feature is required in your application. It has similar failsafe circuitry to the 332.

Also, we have a new product that will release soon if you have enough stock to hold you until that time. The new design has all of the features you require. Samples could be shipped within two weeks. Contact your distributor for an advanced SP336 datasheet to review.

Question:
What is the maximum allowable “operating” junction temperature?

Answer:
maximum allowable “operating” junction temperature : 150°C

Question:
What is θ_{JC} theta j-c for the Sipex 28 pin SOIC?
What is θ_{JB} theta j-b for the Sipex 28 pin SOIC?

Answer:
θ_{JC} theta j-c for the Sipex 28 pin SOIC = 12.7°C (no exposed pad)
θ_{JA} theta j-a for the Sipex 28 pin SOIC = 58.6°C (theta, junction to board is not available)

Question:
Customer is designing an RS-232 to RS-422 converter using one SP332ET, so it set to multi-protocol mode (selA=0, selB=1, \LB=1, SD=0). The T3 transmitter is acting funny, output should be differential RS-422, but is measured as +/-12V on pin 4, and 0/5V on pin 3? Is this a general error?

Answer:

The RS-485 driver output #3 does not have the ability to provide +/-12V from pin 4. In fact, the Sipex RS-232 driver in this part cannot provide RS-232 voltages of +/-12V. Knowing this we would suspect that your measured +/-12V signal is from some other source and not from the SP332.

Question:
I am developing a PLC system with atmega128 and I wonder if SP332 is a good choice for me. I need both RS232 and RS485 at the same time. Do you have any application notes for Atmega128 perhaps?

Answer:
Sorry no application notes available for SP332 or for the Atmega128. If both RS-232 and RS-485 are used at the same time you may want to consider using a two chip solution such as SP232 for RS-232 and SP485 for RS-485.

