These typical curves describe the output sink and source current for average processing, nominal supply voltage and room temperature. For additional data see the Xilinx IBIS files at: http://www.xilinx.com/techdocs/htm_index/sw_ibis.htm

Note: The Xilinx IBIS files also list the extremes of the processing, temperature and voltage conditions as “min” and “max” (delay). Some tools rename these values as “fast-strong” and “slow-weak”. This has nothing to do with the FAST or SLOW slew-rate configuration options, invoked as attributes for each output pin (the default is SLOW).

These slew-rate options are covered in separate IBIS files, with a trailing s for SLOW slew rate, and f for FAST slew rate.

**XC4000 Series**

![XC4000E Curve](image1)

![XC4000XV Curve](image2)

![XC4000XL Curve](image3)

![XC4000XLA Curve](image4)
I/V Curves for Various Device Families

Spartan

XC9500 Series