

Introduction

Silego's SLG55546 is a combination of current-limited USB port power switch with a USB 2.0 high-speed data line (D+/D-) switch and USB charging port identification circuit. The SLG55546 monitors D+ and D-, providing the correct hand-shaking protocol with compliant client devices.

The following shows how the SLG55546 can be used as a simple current limit circuit without using all the BCID features.

Conclusion

Using Silego's SLG55546 device is an easy, cost effective, and reliable way to implement current limiting. It features protection circuitry, fault limiting, and low power consumption. The design in this application note could easily be used in USB ports/Hubs, Notebooks and Universal Wall Charging Adapters.

Current limit circuit design

Figure 1 is an example of using the SLG55546 as a Current Limiter. This circuit limits current to 1.5A, and this level is set by the resistor value on ILIM_H pin. When the current limit is reached, Fault# pin goes low. Other settings of current limit can be designed with different values of R1.

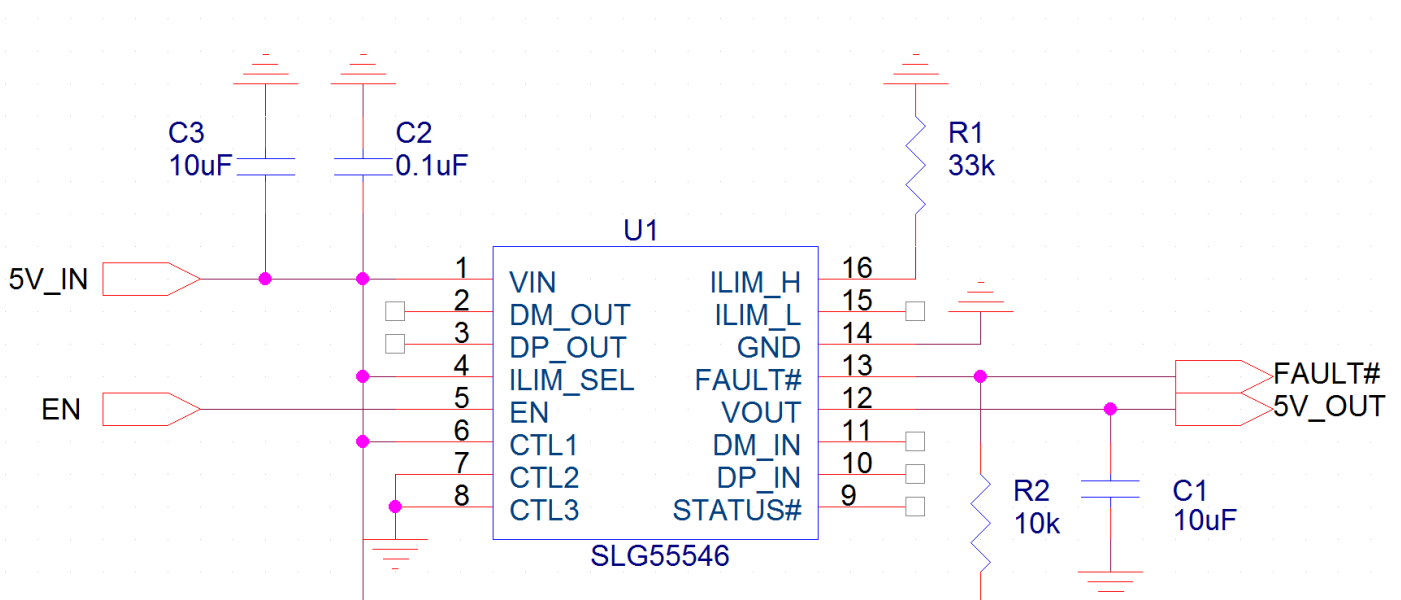


Figure 1. Implementing the Current Limit Circuit



About the Author

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Background: Petro Zeykan received Master's degree in "Cable Television and Information Systems" in 2008 from Lviv Polytechnic National University. Since 2010 he has been working as a Fiber Optic engineer. In 2011 he joined Silego Technology Inc. as Application Engineering Manager for power products. He designs automated characterization systems for load switch products and provides application engineering support.

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Document History

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A	Petro Zeykan	10/17/2014	New application note

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About Silego Technology

Silego Technology, Inc. is a fabless semiconductor company headquartered in Santa Clara, California, with operations in Taiwan, and additional design/technology centers in China, Korea and Ukraine.



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