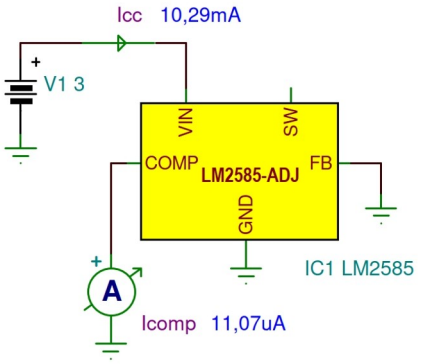
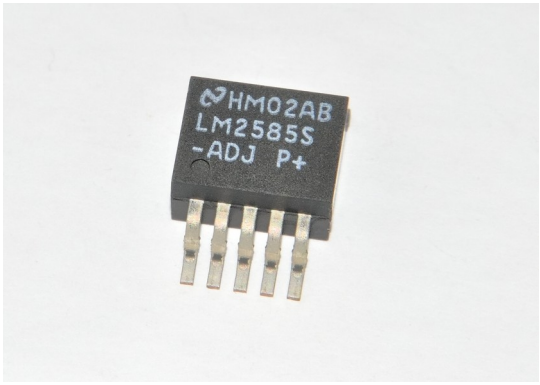
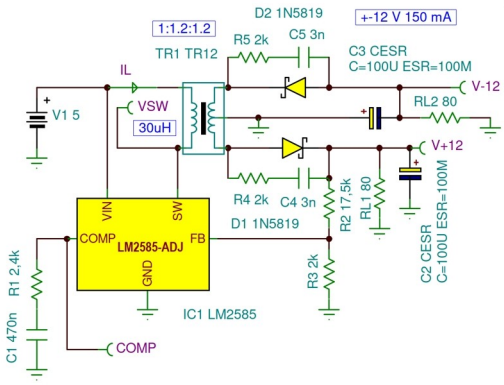
LM2585 Simple Switcher ® 3A Flyback Regulator Macro Model

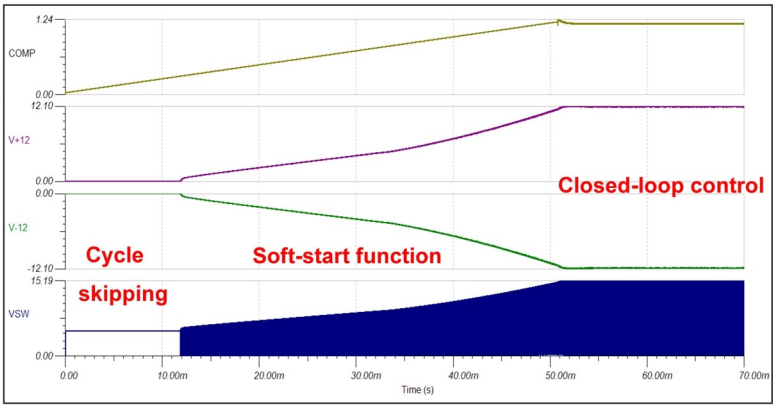
Initial DC Characteristics



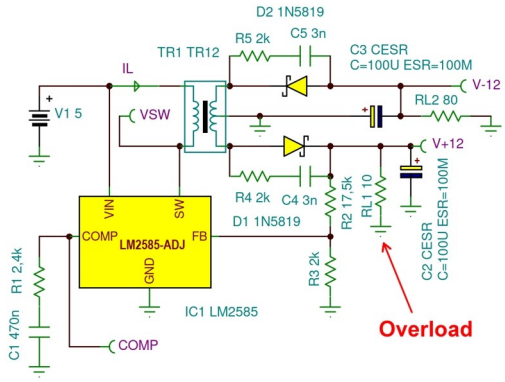


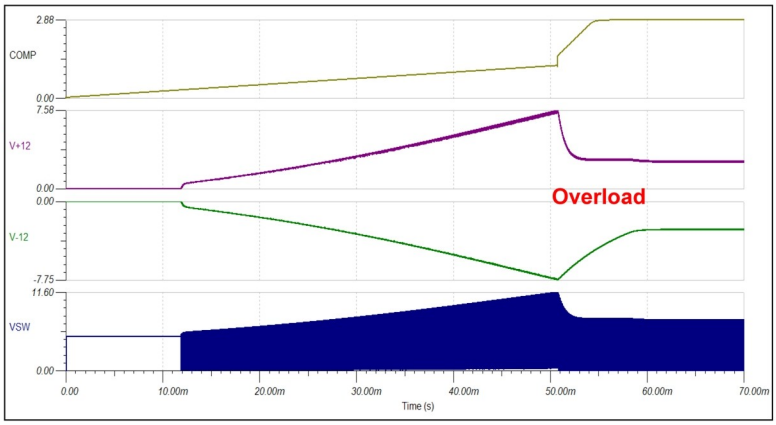
Dual-Output Flyback Regulator

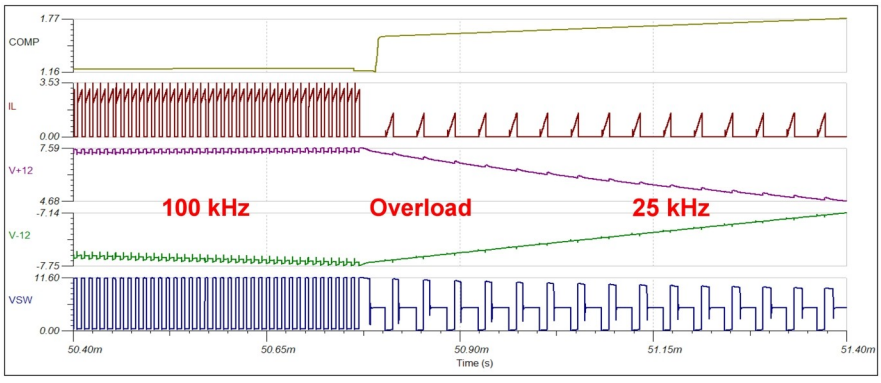




Overload and Over-Current Protection

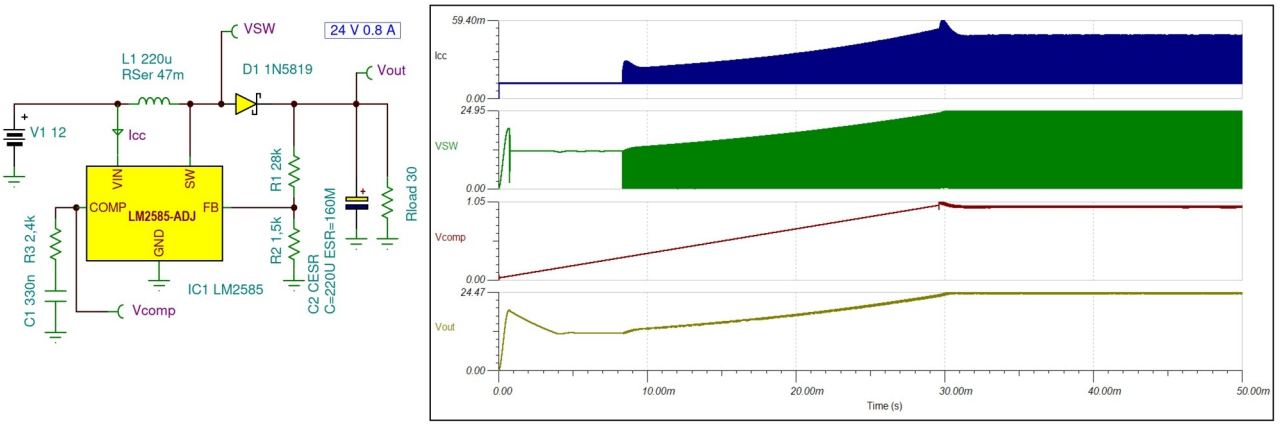


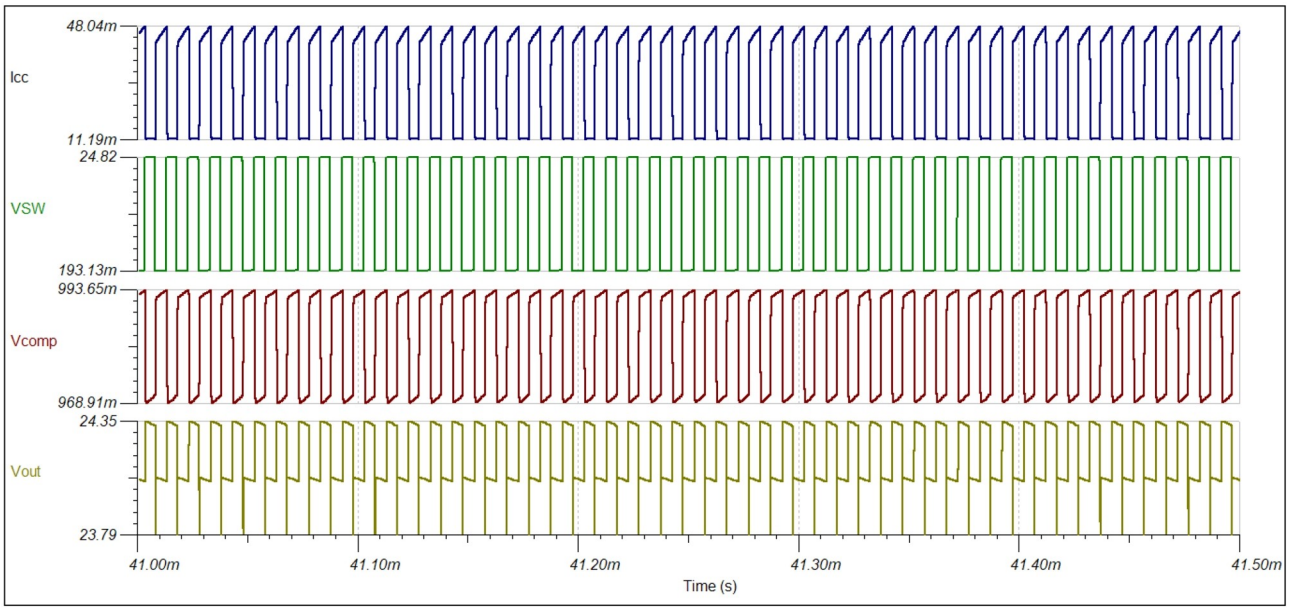


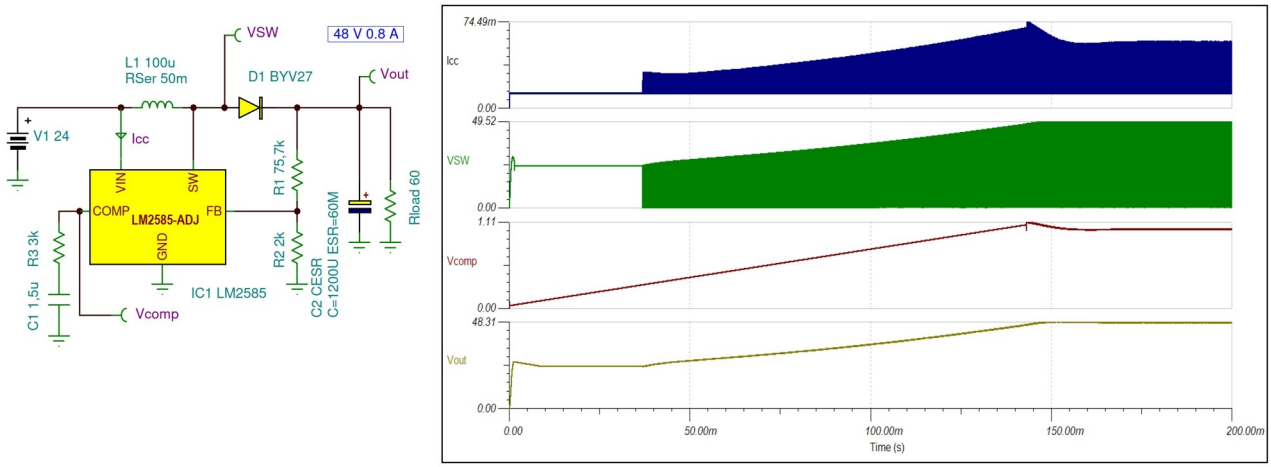


In a flyback regulator application, the LM2585 will survive a short circuit to the main output. When the output voltage drops to 80% of its nominal value, the frequency will drop to 25 kHz. With the longer off times, the transformer can release all of its stored energy before the switch turns back on. In this condition, the switch current limit will limit the peak current, saving the device.

Boost Regulators







Due to the inherent nature of boost regulators, when the output is shorted, current flows directly from the input, through the inductor and the diode, to the output, bypassing the switch. To protect the load and prevent damage to the switch, the current must be externally limited. The external limit should be set to the maximum switch current of the device, which is 3 A.