



New Product Announcement

AP3785T

Primary Side Regulated Switching Mode Power Supply Controller

AP3785T is a high-performance AC-DC power supply controller for battery charger and adapter applications. It can meet the less than 10mW standby power for “Super Star” charger criteria.

AP3785T uses Pulse Frequency Modulation (PFM) for discontinuous conduction mode (DCM) flyback power supplies.

AP3785T provides accurate constant voltage (CV), constant current (CC) and outstanding dynamic performance without requiring an opto-coupler. It also eliminates the need of loop compensation circuitry while maintaining stability.

AP3785T is equipped with a cable drop compensation function to meet various cables with different lengths and gauges and an adjustable line voltage compensation function.

AP3785T has internal over-temperature protection for itself, and also provides dedicated pin for external over temperature protection.

AP3785T is available in SO8 package.



The Diodes Advantage

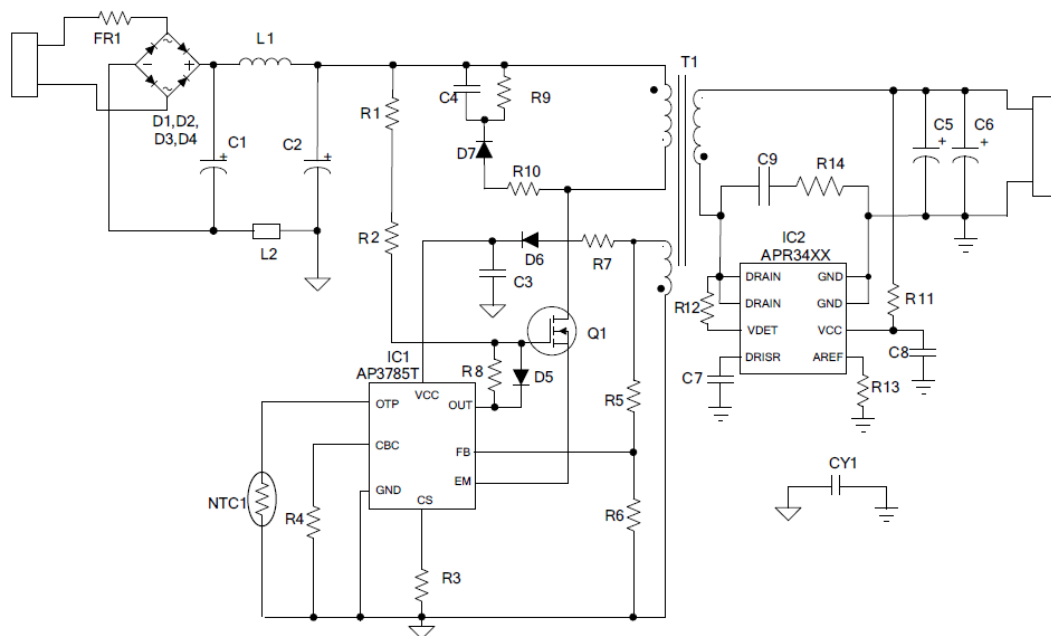
The AP3785T can meet less than 10mW standby power for “Super Star” charger criteria.

- **Primary Side Control**
Eliminate Opto-coupler
- **10mW No-load Input Power**
Ultra low standby power
- **Vcs Jitter**
Reduces system EMI
- **Semi-Valley Turn on**
For higher efficiency and better EMI
- **Multi Protections: OVP & OTP & SCP**
System safety protection
- **External Adjustable Cable Compensation**
To compensate voltage drop on cable

Applications

- Charger/adapter for portable applications

Typical Application Schematic



Product Portfolio

Part Number	BJT/MOSFET Integrated	Vcc Max (V)	Startup Current (µA)	Operating Current (µA)	UVLO Threshold on/off (V)	Power Rating (W)	Standby Power (mW)	Cable Compensation	Package Outline
AP3785T	NA	30	0.2	500	13/5.9	15W	10	ADJ	SO8

Ordering Information

Package	Temperature Range	Cable Compensation Voltage	Part Number	Marking ID	Packing
SO8	-40 to +150°C	ADJ	AP3785TMTR-G1	3785TM-G1	4,000/Tape & Reel