

**LOW POWER PWM CONTROLLER FOR OFF-LINE BATTERY CHARGER****AP3700/A****Description**

The AP3700/A is a green-mode pulse width modulation (PWM) controller. It is specially designed for low power applications such as off-line battery chargers, where the needs for low standby power, space saving and low cost are all required. In a battery charger rated 5V/1A, the maximum standby power is only 0.18Watt.

In normal operation, the AP3700/A switches on and off at a fixed switching frequency of 60 kHz. With a current limit capability of 460mA for AP3700 and 500mA for AP3700A, the AP3700/A can directly drive the emitter of high voltage NPN transistor. When output power falls below a given level, the IC enters skip cycle mode to reduce power consumption.

The AP3700/A also features under-voltage lockout, over-current and short circuit protections.

**Features**

- Current Mode Control with Skip Cycle Capability
- Lower Operating Current: 0.45mA
- Fixed Switching Frequency: 60 kHz
- Frequency Dithering for Low EMI:  $\pm 2.5$ kHz
- Under-Voltage Lockout Protection
- Over-Current Protection
- Internal Short Circuit Protection
- Higher Output Voltage at OUT Terminal
- Low Total Cost Solution

**Applications**

- Battery Chargers
- Off-Line Power Supplies

**Parametric Table**

Switching Frequency (kHz)		60
Startup Current ( $\mu$ A)		230
Operating Current ( $\mu$ A)		450
Effective Current Limit (mA)	AP3700	460
	AP3700A	500
Switching Dither (kHz)		$\pm 2.5$
Package		TO-92

**Benefits**

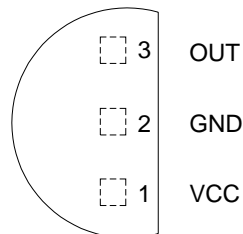
- High Charge Characteristics for Battery Chargers
- Low total cost

**Additional Available Materials**

- Samples
- Data Sheet
- ESD Report
- Demo Board
- Application Note

**Pin Configuration**

TO-92

**Ordering Information Example**

Package	Switching Frequency	Temperature Range	Part Number		Marking ID		Packing Type
			Lead Free	Green	Lead Free	Green	
TO-92	60kHz	-40 to 85°C	AP3700Z-E1	AP3700Z-G1	3700Z-E1	3700Z-G1	Bulk
			AP3700ZTR-E1	AP3700ZTR-G1	3700Z-E1	3700Z-G1	Ammo
			AP3700AZ-E1	AP3700AZ-G1	3700AZ-E1	3700AZ-G1	Bulk
			AP3700AZTR-E1	AP3700AZTR-G1	3700AZ-E1	3700AZ-G1	Ammo

Detailed information please refer to the relevant datasheet.

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