

**PULSE-WIDTH-MODULATION CONTROL CIRCUITS****AZ7500F****Description**

The AZ7500F is a voltage mode pulse width modulation switching regulator control circuit designed primarily for power supply control.

The AZ7500F consists of a reference voltage circuit, two error amplifiers, an on-chip adjustable oscillator, a dead-time control (DTC) comparator, a pulse-steering control flip-flop, and an output control circuit. The precision of voltage reference (V_{REF}) is improved up to $\pm 1\%$ through trimming and this provides a better output voltage regulation. The AZ7500F provides for push-pull or single-ended output operation, which can be selected through the output control.

Features

- Stable 5V Reference Voltage Trimmed to $\pm 1.0\%$ Accuracy
- Uncommitted Output TR for 200mA Sink or Source Current
- Single-End or Push-Pull Operation Selected by Output Control
- Internal Circuitry Prohibits Double Pulse at Either Output
- Complete PWM Control Circuit with Variable Duty Cycle
- On-Chip Oscillator With Master or Slave Operation

Applications

- SMPS
- Back Light Inverter
- Charger

Parametric Table

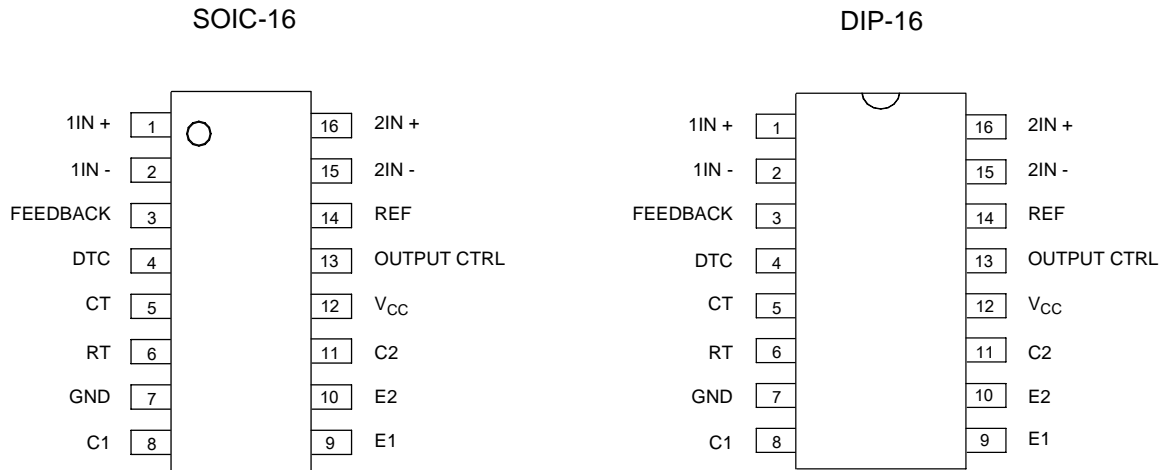
Reference Voltage (V)	5	
Reference Voltage Tolerance	1%	
Oscillator Frequency (kHz)	$C_T=0.01\mu F$, $R_T=12K\Omega$	10.7
Frequency Change with Temperature (Max)	1%	
Open Loop Voltage Gain (db)	95	
Unity-Gain Bandwidth (KHz)	650	
Output Saturation Voltage (Common Emitter) (V)	1.1	
Rise Time (ns)	100	
Fall Time (ns)	25	
Supply Voltage (V)	7 to 36	
Packages	DIP-16	
	SOIC-16	

Benefits

- Higher Power Glitch Rejection
- Very competitive price

Additional Available Materials

- Samples
- Preliminary Datasheet
- Reliability Report
- ESD Report
- Application Notes
- Demo Board

**Pin Configuration****Ordering Information**

Package	Temperature Range	Part Number	Marking ID	Packing Type
SOIC-16	-40 to 85°C	AZ7500FM-G1	AZ7500FM-G1	Tube
		AZ7500FMTR-G1	AZ7500FM-G1	Tape & Reel
DIP-16		AZ7500FP-G1	AZ7500FP-G1	Tube

Detailed information please refer to the relevant datasheet.

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