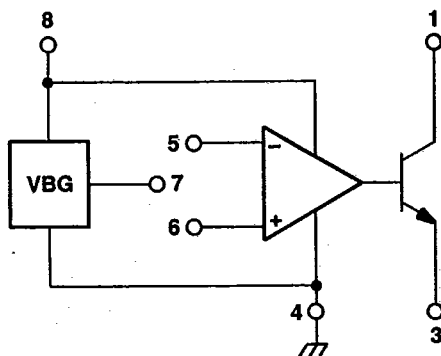
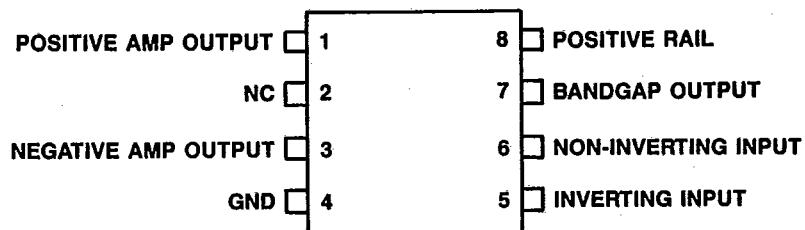


**VOLTAGE CONTROLLER****LB1047AS****PRELIMINARY***T-58-07***Description**

The LB1047AS Voltage Controller contains a bandgap voltage reference and an op-amp with an emitter-follower output stage. The circuit performs the secondary side control functions for a switching power-supply. It drives a light-emitting diode which in turn drives a phototransistor that provides isolation from the input to the output of a power-supply.

**Features**

- Op-amp with an emitter-follower output stage
- 200 ppm/°C bandgap reference
- Flexible circuitry: part of or all of the device may be used in other applications
- 8-pin small outline narrow body package

**Functional Diagram****Pin Diagram**

**LB1047AS****VOLTAGE CONTROLLER**

T-58-07

**Maximum Ratings**

At 25 °C

Stresses exceeding the values listed under Maximum Ratings may cause permanent damage to the device. This is an absolute stress rating only. Functional operation of the device at these or any other conditions in excess of those indicated in the operational sections of this data sheet is not implied. Exposure to maximum-rating conditions for extended periods of time may adversely affect device reliability.

Rating	Value	Unit
Voltage	18	V
Power Dissipation	550	mW
Storage Temperature	- 40 to + 125	°C

**Pin Description**

Lead	Function
1	Positive Amp Output
2	No Connection
3	Negative Amp Output
4	Ground
5	Inverting Input
6	Non-Inverting Input
7	Bandgap Output
8	Positive Rail

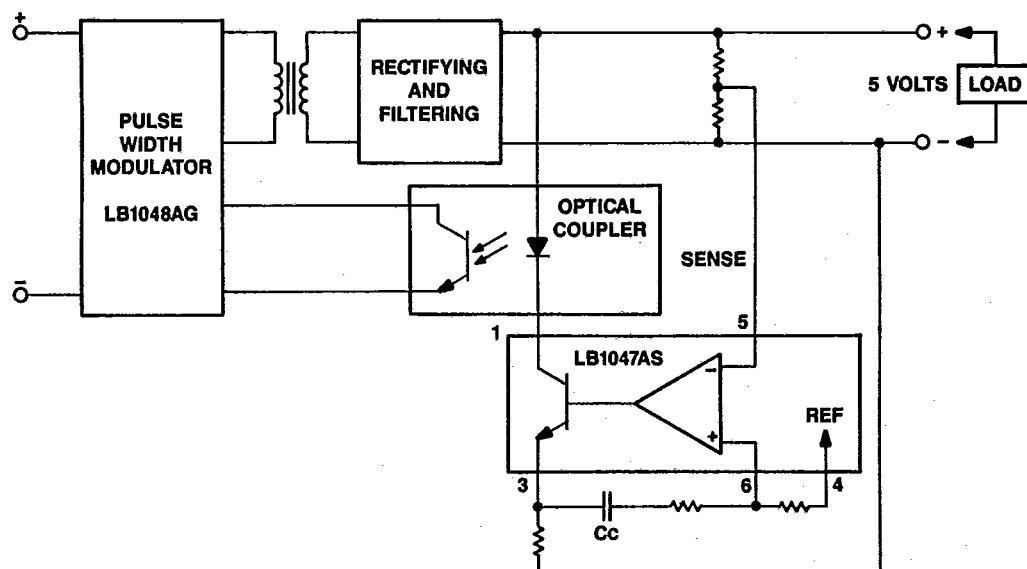
**Electrical Characteristics**(At  $T_A = 25\text{ °C}$  unless otherwise specified)

Minimum and maximum values are testing requirements. Typical values are characteristics of the device and are the result of engineering evaluations. Typical values are for information purposes only and are not part of the testing requirements.

Characteristic and Test Condition	Min.	Typ.	Max.	Unit
Sourcing or Sinking Current @ 5.0 V	6.0	—	—	mA
Power-Supply Current @ 5.0 V	0.8	—	2.5	mA
Bandgap Voltage	1.18	—	1.3	V
Input Bias Current, Negative	—	—	±1.0	μA
Input Bias Current, Positive	—	—	±1.0	μA

**VOLTAGE CONTROLLER****LB1047AS**

T-58-07

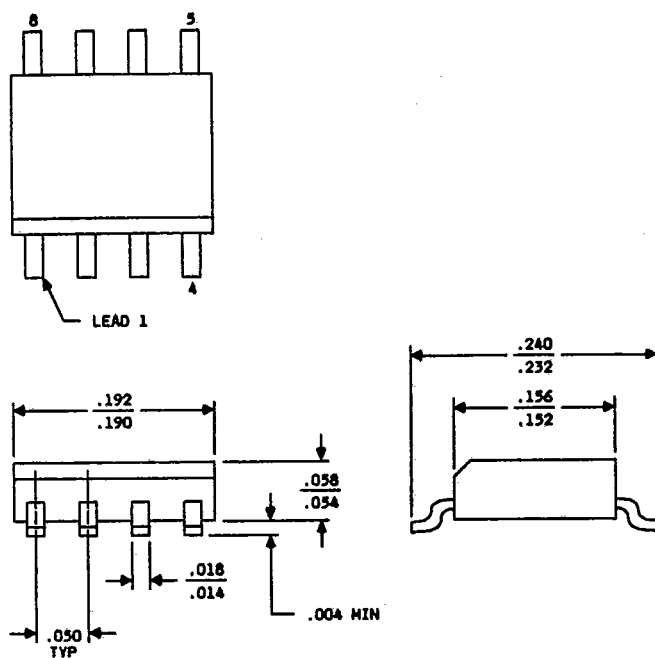
**Applications****Figure 1. Load Independent Constant Voltage Source**

**LB1047AS****VOLTAGE CONTROLLER**

T-58-07

**Outline Drawing**

(Dimensions in Inches)

**Ordering Information**

Device	Comcode
LB1047AS	104371380