

LT1036M, LT1036C LOGIC-CONTROLLED POSITIVE REGULATORS

D3219, JULY 1988—REVISED JANUARY 1989

- **Two Regulated Outputs**
+ 12 V at 3 A
+ 5 V at 75 mA
- **2% Output Voltage Tolerance**
- **60-dB Ripple Rejection**
- **0.7% Output Regulation**
- **100% Thermal-Limit Burn-In**
- **TTL and CMOS Compatible Logic Control**

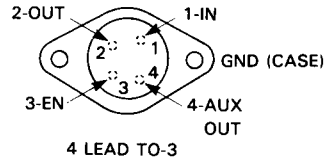
description

The LT1036 contains two positive regulators in the same package. The 12-V main regulator supplies current up to 3 A and the auxiliary 5-V regulator supplies up to 75 mA. The 12-V main regulator has an additional feature that allows a logic signal to control its operation. When the enable input is taken to a low logic level, the main regulator shuts down and its output voltage goes to near 0 V. The auxiliary regulator at this time is unaffected and continues to provide a 5-V output.

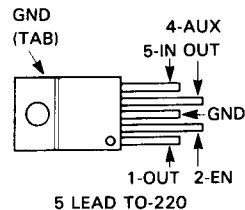
The 12-V main output has current and power limiting combined with thermal shutdown to make it very reliable. The 5-V auxiliary output is not affected by the thermal shutdown circuits or the state of the 12-V main output. This allows it to be used as a back-up in case of overloads on the main supply. The logic enable input of the LT1036 has a 1.6-V threshold and can be driven by most logic families including TTL and CMOS.

Typical applications include power supply sequencing, remote on/off power control, selective system power during emergency power operation, and power supply with back-up.

**KJ PACKAGE
(TOP VIEW)**



**KV PACKAGE
(TOP VIEW)**



AVAILABLE OPTIONS

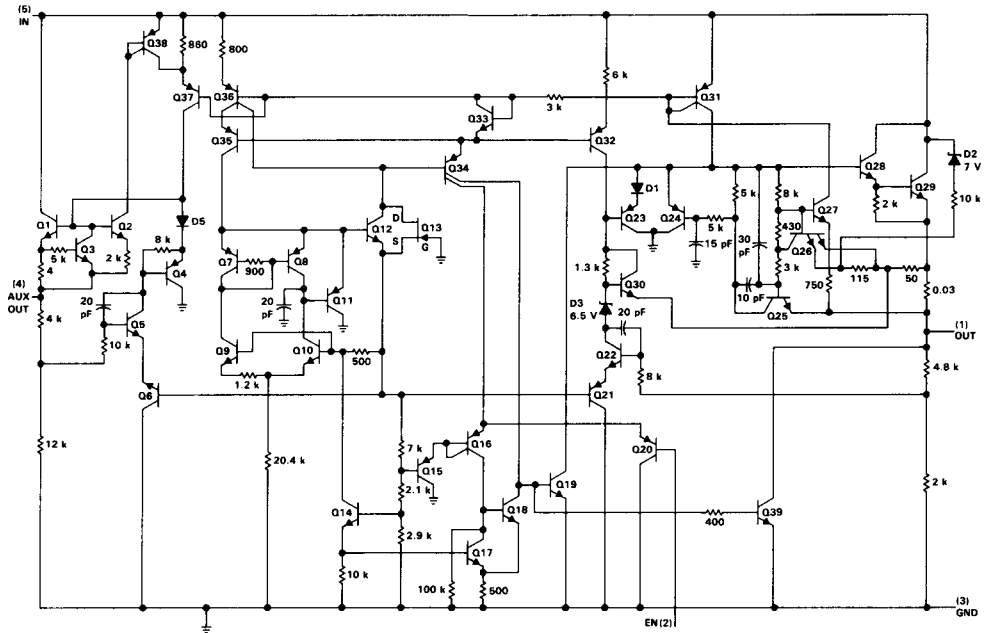
T _J	PACKAGE	
	4 LEAD TO-3 KJ	5 LEAD TO-220 KV
0°C to 125°C	LT1036CKJ	LT1036CKV
-55°C to 150°C	LT1036MKJ	

3

Product Previews

LT1036M, LT1036C LOGIC-CONTROLLED POSITIVE REGULATORS

schematic diagram



All resistor values are nominal and in ohms.

absolute maximum ratings over operating virtual-junction temperature range (unless otherwise noted)

Input voltage, V_I	30 V
Enable voltage, V_{EN}	30 V
Continuous power dissipation, P_D	24 W
Power dissipation under fault conditions	Internally self-limited
Operating virtual junction temperature range: LT1036M	-55°C to 150°C
LT1036C	0°C to 125°C
Storage temperature range	-65°C to 150°C
Lead temperature 1,6 mm (1/16 inch) from case for 10 seconds: KJ package	300°C
Lead temperature 1,6 mm (1/16 inch) from case for 10 seconds: KV package	260°C

recommended operating conditions

	MIN	MAX	UNIT
Output current, I_O		3	A
Operating junction temperature, T_J	LT1036M	-55	150
	LT1036C	0	125

3

Product Previews