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**

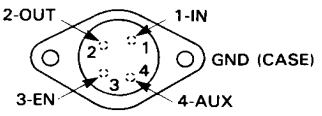
description

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.

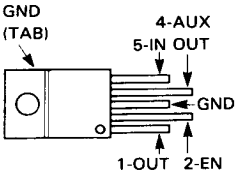
Typical applications include power supply sequencing, remote on/off power control, selective system power during emergency power operation, and power supply with back-up.

KJ PACKAGE
(TOP VIEW)



4 LEAD TO-3

KV PACKAGE
(TOP VIEW)



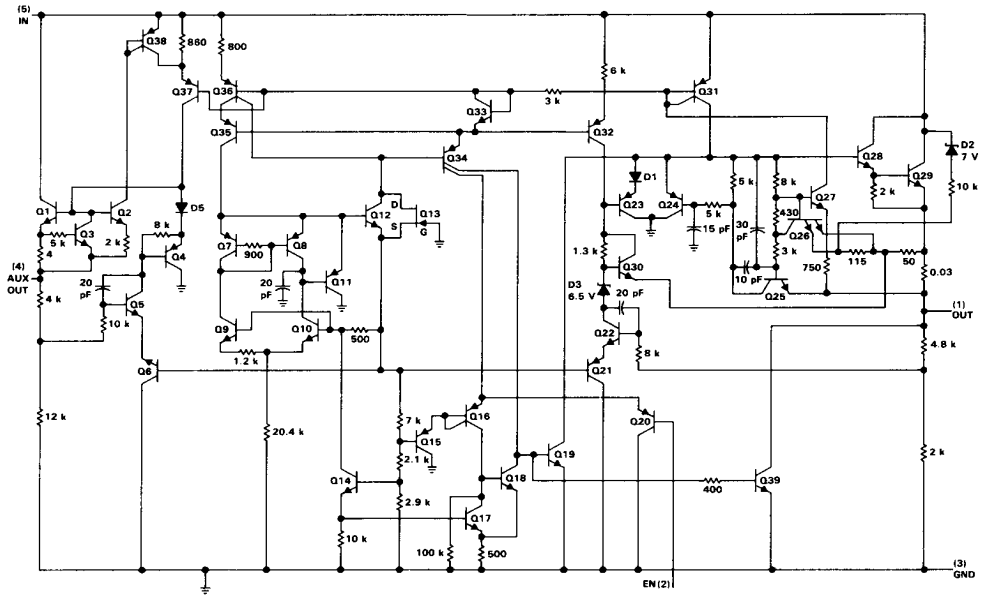
5 LEAD TO-220

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

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	°C
	LT1036C	0	125	°C

TEXAS INSTRUMENTS
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