

Voltage regulator

STANDARD TEMPERATURE RANGE, $0^{\circ}\text{C} \div 70^{\circ}\text{C}$

- OUTPUT CURRENT $> 500\text{ mA}$
- TIGHT TOLERANCE FOR OUTPUT VOLTAGE
- LOAD REGULATION LESS THAN 1%
- RIPPLE REJECTION 61 dB TYP.
- OVERLOAD AND SHORT CIRCUIT PROTECTION

ORDERING NUMBER
L036 TI

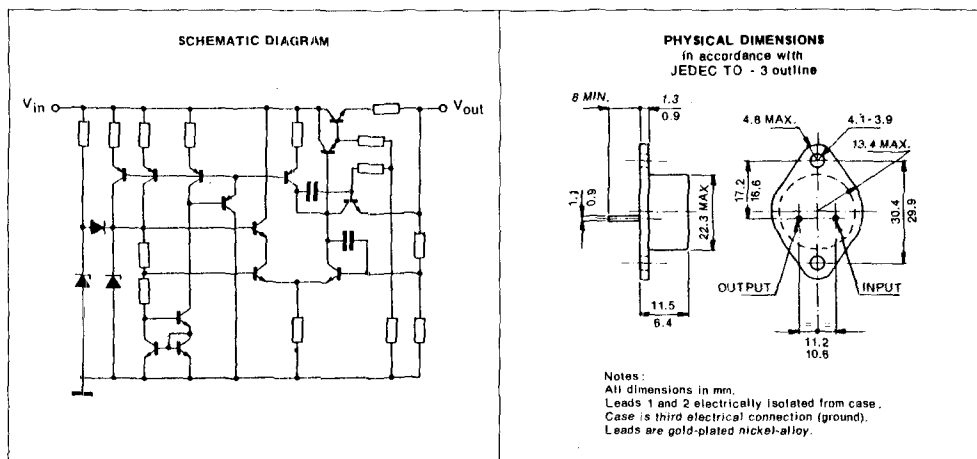
The L 036 TI is a monolithic 12V voltage regulator which can supply more than 500 mA.

The device features high temperature stability, internal overload and short circuit protection, low output impedance and excellent transient response.

The L 036 TI is intended for use as voltage supply for digital circuit with high noise immunity, linear integrated circuits and for any other industrial application.

ABSOLUTE MAXIMUM RATINGS

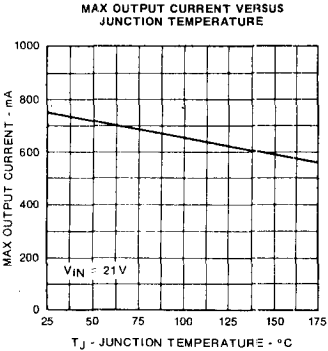
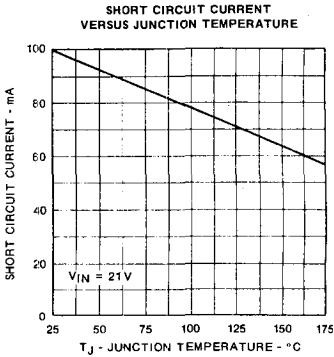
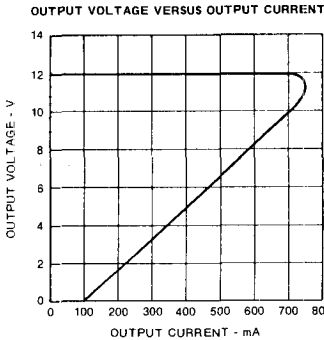
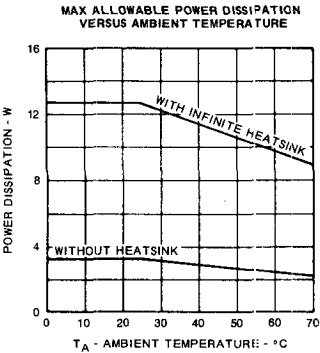
Input Voltage	27V
Power Dissipation (free air, $T_A = 25^{\circ}\text{C}$)	3.25W
Power Dissipation (with infinite heat sink, $T_C = 25^{\circ}\text{C}$)	12.75W
Storage Temperature Range	$-55^{\circ}\text{C} - 150^{\circ}\text{C}$
Operating Temperature Range	$0^{\circ}\text{C} \text{ to } 70^{\circ}\text{C}$



ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise noted)

PARAMETER	CONDITIONS	Min.	Typ.	Max.	Unit
Output Voltage	V _{in} = 14.5 ÷ 27V, I _L = 10 mA, C _L = 10 μF	11.4	12	12.6	V
Load Regulation	V _{in} = 21V, I _L = 0 ÷ 500 mA		0.3	1	% V _{out}
Regulated Output Current	V _{in} = 21V, $\frac{\Delta V_{out}}{V_{out}} \leq 1\%$	500	720		mA
Maximum Output Current	V _{in} = 21V		750	1000	mA
Output Resistance	V _{in} = 21V, I _L = 500 mA		20		mΩ
Line Regulation	V _{in} = 14.5 ÷ 21V, C _L = 10 μF, I _L = 10 mA		0.1	0.5	%
Ripple Rejection	V _{in} = 19V, ΔV _{in} = 4 V _{pp} , f = 100 Hz, I _L = 10 mA	46	60		dB
Output Noise Voltage	V _{in} = 21V, I _L = 10 mA, C _L = 20 μF, BW = 10Hz ÷ 100 KHz		0.15		mV
Standby Current	V _{in} = 27V, I _L = 0		10		mA
Temperature Coefficient	V _{in} = 21V, I _L = 10 mA, T _A = 0°C ÷ 60°C		003		%/°C
Short Circuit Current	V _{in} = 21V, V _{out} = 0		100	200	mA

TYPICAL ELECTRICAL CHARACTERISTICS



TYPICAL APPLICATION CIRCUIT

