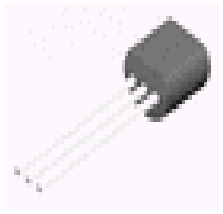
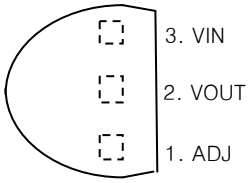
ADJUSTABLE VOLTAGE REGULATOR (POSITIVE) LM317L

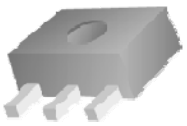
3-TERMINAL 100mA POSITIVE ADJUSTABLE REGULATOR

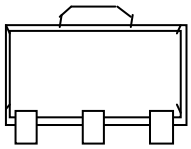
TO-92 PKG





SOT-89 PKG





1.Adj 2. Vout 3. Vin

FEATURES

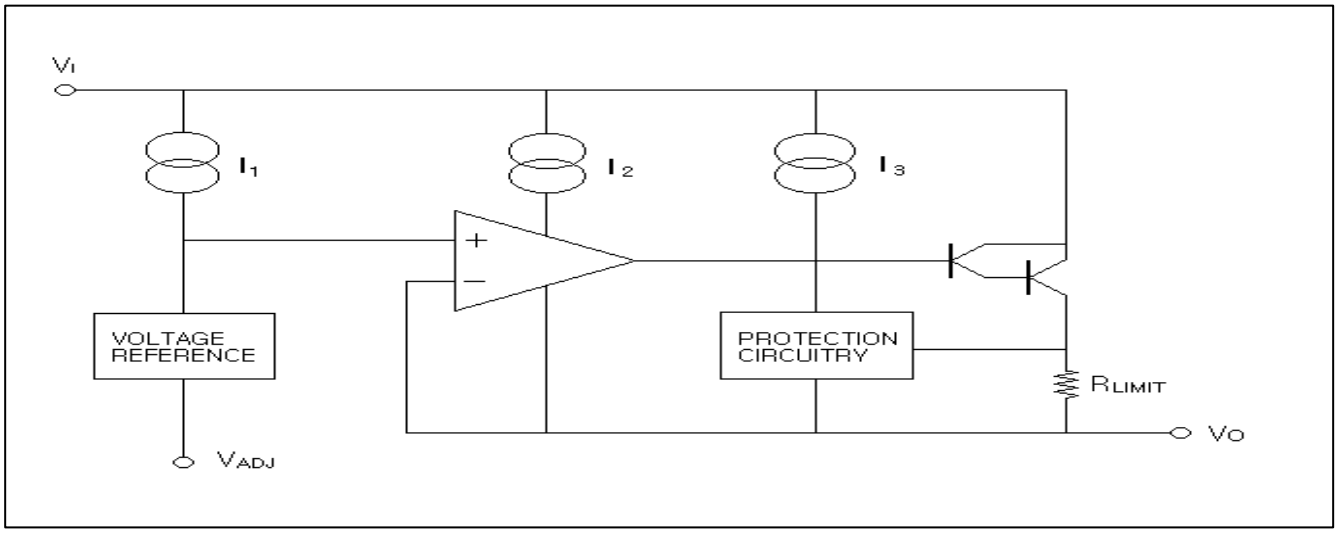
- Output current in Excess of 100mA
- Output Adjustable Between 1.2V and 37V
- Internal Thermal-Overload Protection
- Internal Short-Circuit Current-Limiting
- Output Transistor Safe-Area Compensation
- Floating operation for high voltage applications
- Moisture Sensitivity Level 3

DISCRIPTION

This monolithic integrated circuit is an adjustable 3-terminal positive voltage regulator designed to supply more than 100mA of load current with an output voltage adjustable over a 1.2 to 37V. It employs internal current limiting, thermal shut-down and safe area compensation.

ORDERING INFORMATION		
Device	Marking	Package
LM317L	LM317L	TO-92
LM317F	317	SOT-89

BLOCK DIAGRAM



TYPICAL APPLICATIONS

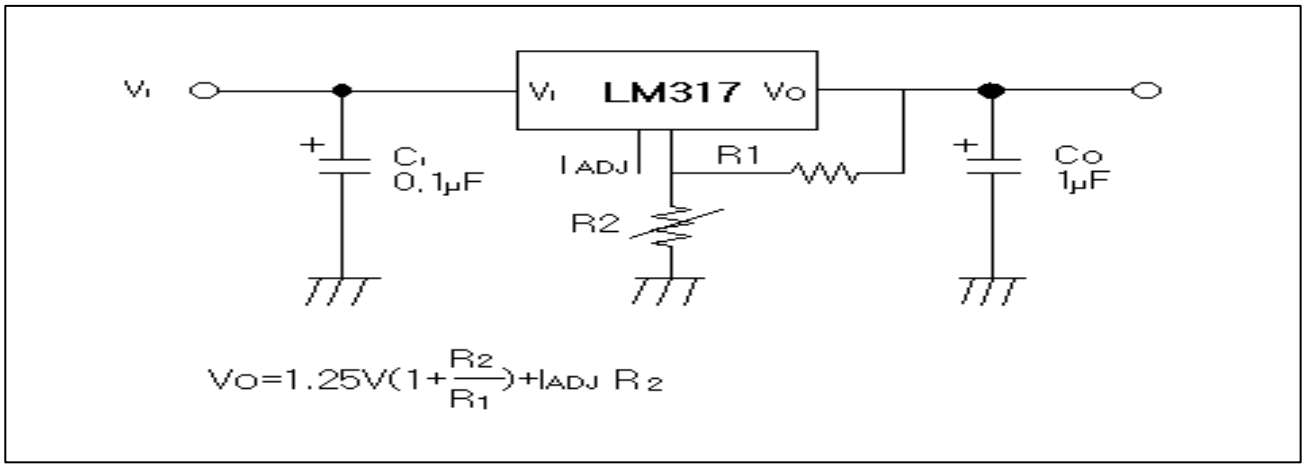


Fig.5 Programmable Regulator

C_I is required when regulator is located in appreciable distance from power supply filter.
Co is not needed for stability, however, it does improve transient response.
Since I_{ADJ} is controlled to less than 100μA, the error associated with this term is negligible in most applications.

ABSOLUTE MAXIMUM RATINGS (T_A=25℃, unless otherwise specified)

Characteristic	Symbol	Value	Unit
Input-output Voltage Differential	V_I-Vo	40	V
Lead Temperature	T_{LEAD}	230	℃
Power Dissipation	P_D	Internally limited	-
Operating Temperature Range	T_{OPR}	0 ~ +125	℃
Storage Temperature Range	T_{STG}	-65 ~ +125	℃

ELECTRICAL CHARACTERISTICS

(V_I-Vo=5V, Io=40mA, 0℃≤T_J≤125℃, I_{MAX}=100mA, unless otherwise specified)

Characteristic	Symbol	Test condition		Min.	Typ.	Max.	Unit
Line Regulation	△Vo	T_A=0 ~ 125℃	3V≤V_I-Vo≤40V		0.01	0.04	%/V
			3V≤V_I-Vo≤40V		0.02	0.07	%/V
Load Regulation	△Vo	T_A=25℃, 10mA≤Io≤I_{MAX}					
			Vo≤5V		10	25	mV
			Vo≥5V		0.1	0.5	%/Vo
		10mA≤Io≤I_{MAX}					
			Vo≤5V		20	70	mV
			Vo≥5V		0.3	1.5	%/Vo
Adjustable Pin Current	I_{ADJ}				46	100	μA
Adjustable Pin Current Cha	△I_{ADJ}	3V≤V_I-Vo≤40V 10mA≤Io≤I_{MAX} P≤P_{MAX}			0.2	5	μA
Reference Voltage	V_{REF}	3V≤V_{IN}-V_{OUT}≤40V 10mA≤Io≤I_{MAX} P_D≤P_{MAX}		1.20	1.25	1.30	V
Temperature Stability	ST_T				0.7		%/Vo
Minimum Load Current to Maintain Regulation	$L_{(MIN)}$	V_I-Vo=40V			3.5	10	mA
Maximum Output Current	$I_{O(MAX)}$	V_I-Vo≤5V, P_D≤P_{MAX}		100	200		mA
		V_I-Vo≤40V, P_D≤P_{MAX}, T_A = 25℃		156	400		mA
RMS Noise, % of V_{OUT}	e_N	T_A=25℃, 10Hz≤f≤10KHz			0.003	0.01	%/Vo
Ripple Rejection	RR	Vo=10V, f=120Hz without C_{ADJ} C_{ADJ}=10 μF		66	60 75		dB
Long-Term Stability, T_J=T_{HIGH}	ST	T_A=25℃, for end point measurements, 1000HR			0.3	1	%

* Load and line regulation are specified at constant junction temperature. Change in V_D due to heating effects must be taken into account separately. Pulse testing with low duty is used.

单击下面可查看定价，库存，交付和生命周期等信息

>>HTC(泰进)