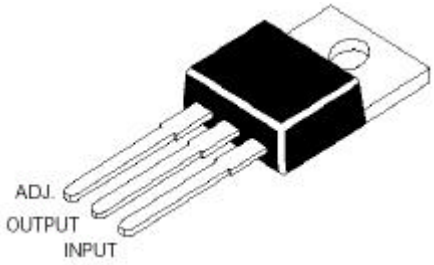
3-TERMINAL 1A POSITIVE ADJUSTABLE VOLTAGE REGULATOR

LM317

TO-220
Plastic Package



APPLICATIONS

The voltages available allow these Regulators to be used in Logic Systems, Instrumentation, Hi-Fi Audio Circuits and other Solid State Electronic Equipment

FEATURES

Internal Short Circuit Protection and Internal Over Temperature Protection

ABSOLUTE MAXIMUM RATINGS (T_a=25ºC)

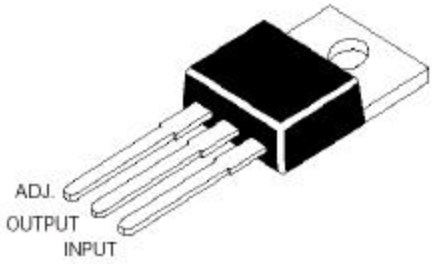
DESCRIPTION	SYMBOL	VALUE	UNIT
Input Output Voltage Difference	$V_I - V_O$	40	V
Lead Temperature	T_{lead}	230	ºC
Power Dissipation	P_D	Internal Limited	
Operating Temperature Range	T_{amb}	0 ~ 125	ºC
Storage Temperature Range	T_{stg}	- 65 ~150	ºC

ELECTRICAL CHARACTERISTICS

V_I-V_O=5V, 0ºC <T_J <125ºC, I_O=500mA, (Max=1.5A, P_{max}=20W, unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Line Regulation	ΔV_O	T_a=25ºC, 3V<=V_I -V_O<=40V			0.04	%/V
		T_a=0 -125ºC, 3V<=V_I -V_O<=40V			0.07	%/V
Load Regulation	ΔV_O	T_a=25ºC, V_O<=6V			25	mV
		10mA<=I_O<=IMAX V_O>=5V			0.5	%/VO
		10mA<=I_O<=IMAX V_O<=5V			70	mV
		V_O>=6V			1.5	%/VO
Adjustable Pin Current	IA_{DJ}				100	µA
Adjustable Pin Current Change	ΔIA_{DJ}	2.5V<=V_I -V_O<=40V, 10mA<=1_O <=IMAX, P_D<=PMAX			5.0	µA
Reference Voltage	V_{REF}	3V<=V_I -V_O<=40V, 10mA<=1_O <=IMAX, P_D<=PMAX	1.2		1.3	V
Temperature Stability	S_{TT}			0.7		%/VO
Minimum Load Current for Regulation	$I_{L(min)}$	V_I -V_O=40V			10	mA

LM317Rev110205E



TO-220
Plastic Package

ELECTRICAL CHARACTERISTICS

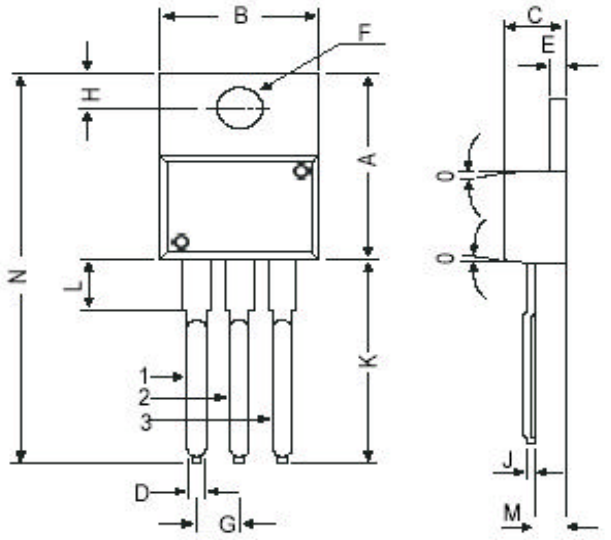
V_I-V_O=5V, 0ºC <T_J<125ºC, I_O=500mA, (Max=1.5A, P_{max}=20W, unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Maximum Output Current	$I_{O(max)}$	V_I -V_O=15V, P_D<=PMAX	1.5			A
		V_I -V_O=40V, P_D<=PMAX, T_a=25ºC	0.15			A
RMS Noise V.S% of Vout	eN	T_a=25ºC, 10Hz<= f<=10KHz			0.01	%/VO
Ripple Rejection	R_R	V_O=10V, f=120Hz		60		dB
		V_O=10V, f=120Hz, C_{ADJ}=10µF	66			dB
Long Term Stability, T_J=T_{HIGH}	S_T	T_a=25ºC, 1000hr			1.0	%
Junction to Case Thermal Resistance	$R_{th\ (j-c)}$			5.0		ºC/W

Note: Testing with low duty pulse should be used to aviod heating effect

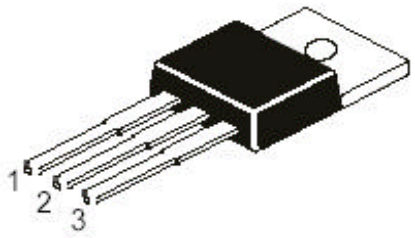
LM317Rev110205E

TO-220 Plastic Package



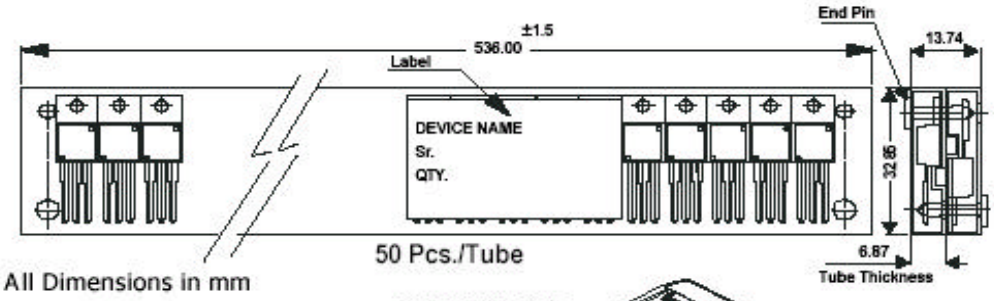
DIM	MIN	MAX
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	—	0.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	—	0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N	—	31.24
O	7 DEG	

All diminsions in mm.



Pin Configuration
1. ADJ.
2. OUTPUT
3. INPUT

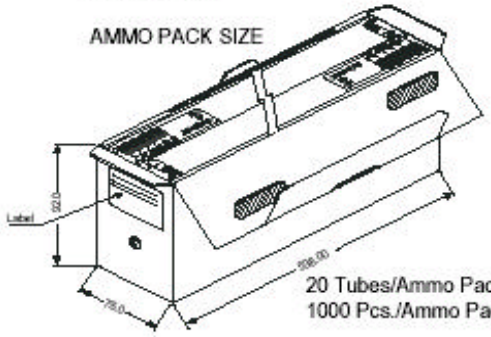
TO-220 Tube Packing



50 Pcs./Tube

All Dimensions in mm

AMMO PACK SIZE



20 Tubes/Ammo Pack
1000 Pcs./Ammo Pack

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	**Net Weight/Qty**	**Size**	**Qty**	**Size**	**Qty**	**Gr Wt**
TO-220	**200 pcs/polybag** **50 pcs/tube**	**396 gm/200 pcs** **120 gm/50 pcs**	**3" x 7.5" x 7.5"** **3.5" x 3.7" x 21.5"**	**1.0K** **1.0K**	**17" x 15" x 13.5"** **19" x 19" x 19"**	**16.0K** **10.0K**	**36 kgs** **29 kgs**

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.

CDIL is a registered Trademark of
Continental Device India Limited
C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119
email@cdil.com www.cdilsemi.com

LM317Rev110205E