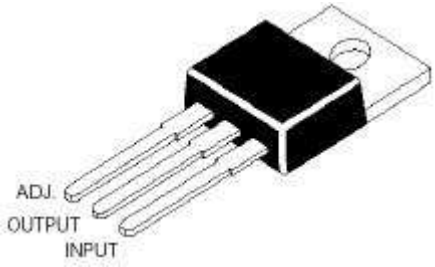
3-TERMINAL 1A POSITIVE ADJUSTABLE VOLTAGE REGULATOR

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

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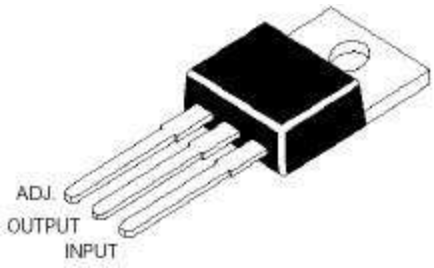

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ELECTRICAL CHARACTERISTICS

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

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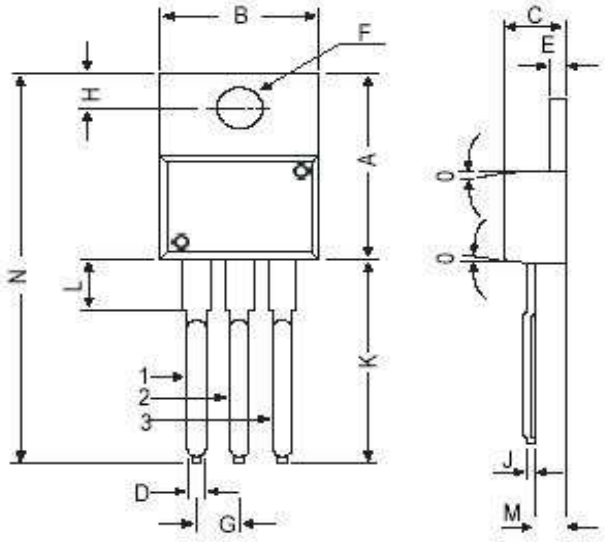
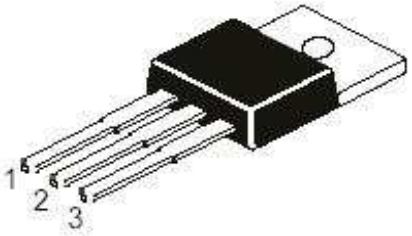
TO-220 Plastic Package



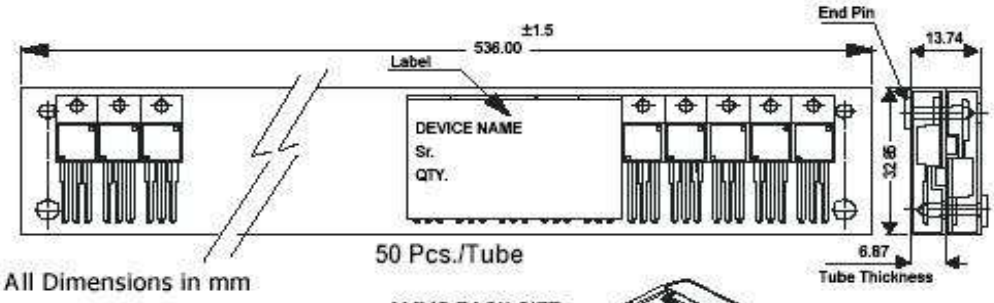
DIM	MIN	MAX
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	—	0.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	—	0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N	—	31.24
O	7 DEG	

All diminsions in mm.



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

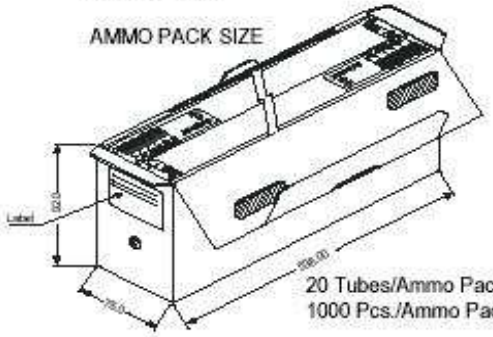
TO-220 Tube Packing



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

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