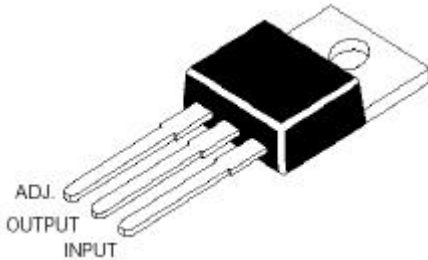


3-TERMINAL 1A POSITIVE ADJUSTABLE VOLTAGE REGULATOR

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 ($T_a=25^\circ\text{C}$)

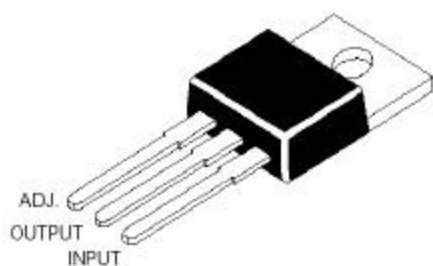
DESCRIPTION	SYMBOL	VALUE	UNIT
Input Output Voltage Difference	$V_I - V_O$	40	V
Lead Temperature	T_{lead}	230	$^\circ\text{C}$
Power Dissipation	P_D	Internal Limited	
Operating Temperature Range	T_{amb}	0 ~ 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 ~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Line Regulation	ΔV_O	$T_a = 25^\circ\text{C}$, $3\text{V} \leq V_I - V_O \leq 40\text{V}$			0.04	%/V
		$T_a = 0 - 125^\circ\text{C}$, $3\text{V} \leq V_I - V_O \leq 40\text{V}$			0.07	%/V
Load Regulation	ΔV_O	$T_a = 25^\circ\text{C}$, $V_O \leq 6\text{V}$			25	mV
		$10\text{mA} \leq I_O \leq I_{\text{MAX}}$ $V_O \geq 5\text{V}$			0.5	%/V
		$10\text{mA} \leq I_O \leq I_{\text{MAX}}$ $V_O \leq 5\text{V}$ $V_O \geq 6\text{V}$			70	mV
Adjustable Pin Current	I_{ADJ}				100	μA
Adjustable Pin Current Change	ΔI_{ADJ}	$2.5\text{V} \leq V_I - V_O \leq 40\text{V}$, $10\text{mA} \leq I_O \leq I_{\text{MAX}}$, $P_D \leq P_{\text{MAX}}$			5.0	μA
Reference Voltage	V_{REF}	$3\text{V} \leq V_I - V_O \leq 40\text{V}$, $10\text{mA} \leq I_O \leq I_{\text{MAX}}$, $P_D \leq P_{\text{MAX}}$	1.2		1.3	V
Temperature Stability	S_{TT}			0.7		%/V
Minimum Load Current for Regulation	$I_{\text{L(min)}}$	$V_I - V_O = 40\text{V}$			10	mA

LM317Rev110205E



ELECTRICAL CHARACTERISTICS

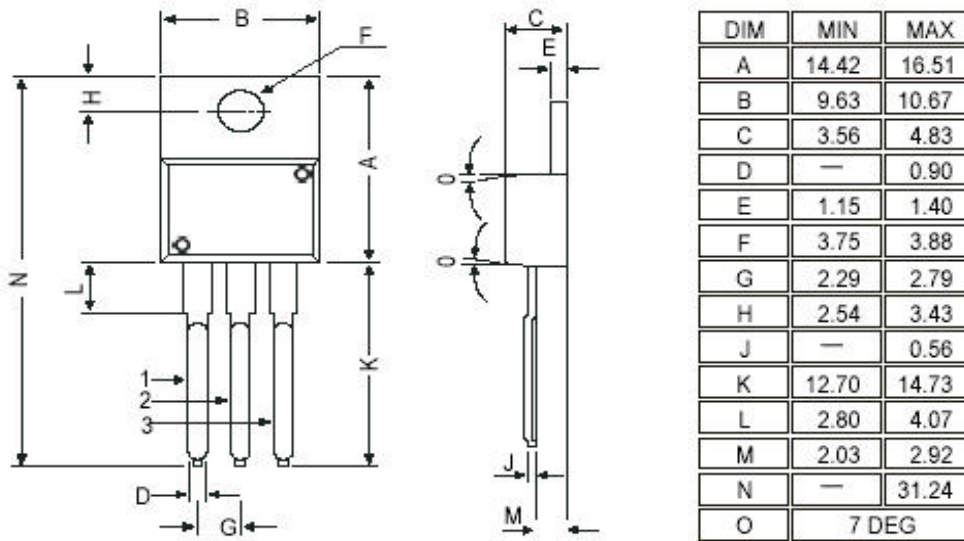
$V_I - V_O = 5V$, $0^\circ\text{C} < T_J < 125^\circ\text{C}$, $I_O = 500\text{mA}$, (Max=1.5A, $P_{\text{max}} = 20\text{W}$, unless specified otherwise)

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

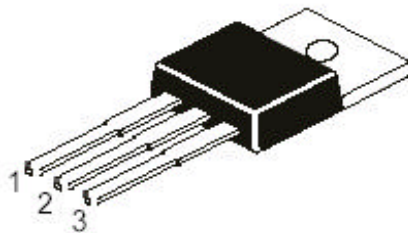
Note: Testing with low duty pulse should be used to avoid heating effect

LM317Rev110205E

TO-220 Plastic Package



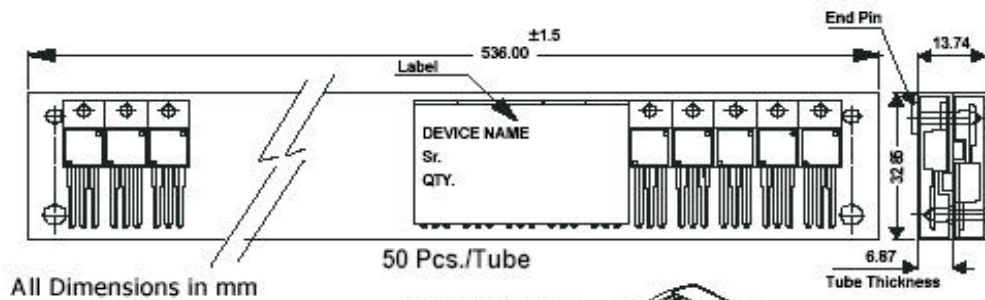
All dimensions in mm.



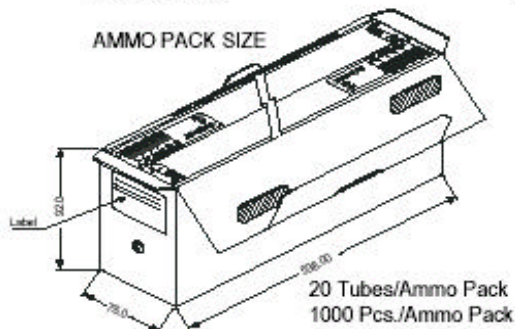
Pin Configuration

1. ADJ.
2. OUTPUT
3. INPUT

TO-220 Tube Packing



AMMO PACK SIZE



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	396 gm/200 pcs	3' x 7.5' x 7.5'	1.0K	17' x 15' x 13.5'	16.0K	36 kgs
	50 pcs/tube	120 gm/50 pcs	3.5' x 3.7' x 21.5'	1.0K	19' x 19' x 19'	10.0K	29 kgs

Disclaimer

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