



## LM317K

### 3-Terminal Positive Adjustable Regulators

#### GENERAL DESCRIPTION

The LM317T are monolithic integrated circuits in TO220 packages. They are intended for use as positive adjustable voltage regulators, and designed to supply more than 1.5A of load current with an output voltage adjustable over a 1.2 to 37V range. Compliance to RoHS.

#### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings	Value	Unit
$V_i-V_o$	Input-Output Voltage Differential	40	V
$I_o$	Output Current	1.5	A
$P_D$	Power Dissipation	Internally Limited	W
$T_{OP}$	Operating Junction Temperature	0° to 125	°C
$T_{STG}$	Storage Temperature	-65° to 150	°C

#### THERMAL DATA

Symbol	Ratings	Value	Unit
$R_{thJC}$	From Junction to Case Thermal Resistance	1.67	°C/W
$R_{thJA}$	From Junction to Free-Air Thermal Resistance	62.5	

#### CHARACTERISTICS

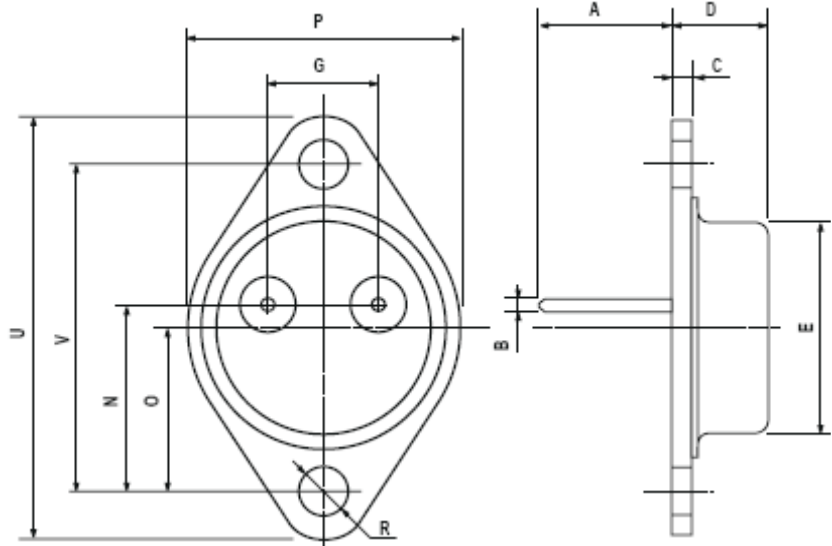
$V_i-V_o = 5\text{ V}$ ,  $I_o = 500\text{ mA}$ ,  $I_{MAX} = 1.5\text{ A}$ ,  $P_{MAX} = 20\text{ W}$ , unless otherwise specified

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$V_{REF}$	Reference Voltage	$V_i-V_o = 5\text{ V}$ $I_o = 40\text{ to }500\text{ mA}$	1.2	1.25	1.3	V
$\Delta V_o$	Line Regulation	$V_i-V_o = 3\text{ to }40\text{ V}$ $I_o = 500\text{ mA}$	-	-	0.05	%/V
$\Delta V_o$	Load Regulation	$V_i-V_o = 5\text{ V}$ $I_o = 10\text{mA to }1.5\text{ A}$	-	-	1	%
$I_{ADJ}$	Adjustment Pin Current	$V_i-V_o = 5\text{ V}$ $I_o = 40\text{ to }500\text{ mA}$	-	-	100	$\mu\text{A}$
$\Delta I_{ADJ}$	Adjustment Pin Current	$V_i-V_o = 3\text{ to }40\text{ V}$ $I_o = 40\text{ to }500\text{ mA}$	-	-	5	$\mu\text{A}$
$\Delta I_{ADJ}$	Adjustment Pin Current	$V_i-V_o = 5\text{ V}$ $I_o = 10\text{mA to }1.5\text{ A}$	-	-	5	$\mu\text{A}$
$S_{VR}$	Ripple Rejection	$V_i-V_o = 5\text{ V}$ ; $I_o = 500\text{ mA}$ $V_o = 10\text{ V}$ ; $f = 100\text{ Hz}$ $C_{ADJ} = 10\text{ }\mu\text{F}$	66	-	-	dB

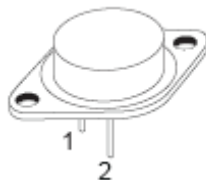
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### MECHANICAL DATA CASE TO-3

DIMENSIONS (mm)		
	min	max
A	11	13.10
B	0.97	1.15
C	1.5	1.65
D	8.32	8.92
F	19	20
G	10.70	11.1
N	16.50	17.20
P	25	26
R	4	4.09
U	38.50	39.30
V	30	30.30



Pin 1 :	Adjust.
Pin 2 :	Input
Case :	Output



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