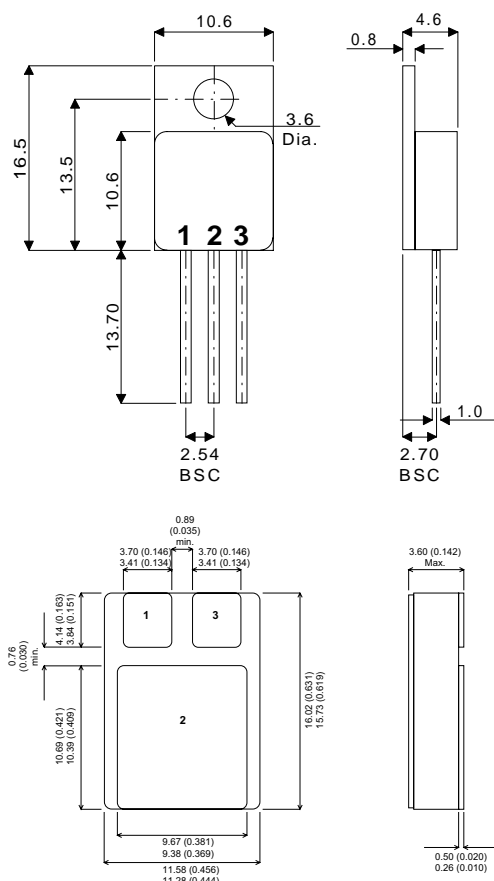


## MECHANICAL DATA

Dimensions in mm



Pin1 - Adjust

Pin 2 - Input

Pin 3 - Output

**TO220M**  
**SMD1**

**-TO220 Metal Package - Isolated**  
**-SMD1 Ceramic Surface Mount Package**

## NEGATIVE ADJUSTABLE VOLTAGE REGULATOR TO 220 METAL

### FEATURES

- HERMETIC TO220 METAL OR CERAMIC SURFACE MOUNT PACKAGES
- SCREENING OPTIONS AVAILABLE
- ALL LEADS ISOLATED FROM CASE (METAL PACKAGE)
- OUTPUT VOLTAGE RANGE OF -1.25 TO -37V (-1.25 TO -57V FOR -HV VERSION)
- OUTPUT CURRENT IN EXCESS OF 1.5A
- 0.1% LINE AND LOAD REGULATION
- FLOATING OPERATION FOR HIGH VOLTAGES
- COMPLETE SERIES OF PROTECTIONS:
  - CURRENT LIMITING
  - THERMAL SHUTDOWN
  - SOA CONTROL
  - 1% VOLTAGE TOLERANCE OPTION

## ABSOLUTE MAXIMUM RATINGS (T<sub>case</sub> = 25°C unless otherwise stated)

V <sub>I-O</sub>	Input - Output Differential Voltage	– Standard	–40V
		– HV Series	–60V
I <sub>O</sub>	Output Current		Internally limited
P <sub>D</sub>	Power Dissipation		Internally limited
T <sub>j</sub>	Operating Junction Temperature Range		–55 to 150°C
T <sub>stg</sub>	Storage Temperature		–65 to 150°C

**ELECTRICAL CHARACTERISTICS** ( $V_I - V_O = 5V$ ,  $I_O = 500mA$ , unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit.
$\Delta V_O$ Line Regulation	$V_I - V_O = 3 \text{ to } 40V$ $T_j = 25^\circ C$		0.01 0.02	0.02 0.05	% / V
$\Delta V_O$ Load Regulation	$V_O \leq 5V$ $I_O = 10mA \text{ to } 1.5 A$ $T_j = 25^\circ C$		5 20	15 50	mV
	$V_O \geq 5V$ $I_O = 10mA \text{ to } 1.5A$ $T_j = 25^\circ C$		0.1 0.3	0.3 1	%
$I_{ADJ}$ Adjust Pin Current			50	100	$\mu A$
$\Delta I_{ADJ}$ Adjust Pin Current Change	$V_I - V_O = 2.5 \text{ to } 40V$ $I_O = 10mA \text{ to } 1.5A$		0.2	5	$\mu A$
$V_{REF}$ Reference Voltage (between pin 3 and pin 1)	$V_I - V_O = 3 \text{ to } 40V$ $I_O = 10mA \text{ to } 1.5A$	1.2	1.25	1.3	V
$\frac{\Delta V_O}{V_O}$ Output Voltage Temperature Stability			1		%
$I_{O(min)}$ Minimum Load Current	$V_I - V_O = 40V$		3.5	5	mA
$I_{O(max)}$ Maximum Load Current	$V_I - V_O \leq 15V$	1.5	2.2		A
	$V_I - V_O = 40V$		0.4		
$e_N$ Output Noise (percentage of $V_O$ )	$T_j = 25^\circ C$ , 10Hz to 10kHz		0.003		%
SVR Supply Voltage Rejection (*)	$T_j = 25^\circ C$ $f = 100Hz$ $C_{ADJ} = 0$		65		dB
	$C_{ADJ} = 10\mu F$	66	80		

(\*)  $C_{ADJ}$  is connected between pin 1 and ground.

**THERMAL DATA**

$R_{THj-case}$	Thermal Resistance Junction – Case	Max. $3^\circ C / W$
$R_{THj-amb}$	Thermal Resistance Junction – Ambient	Max. $50^\circ C / W$