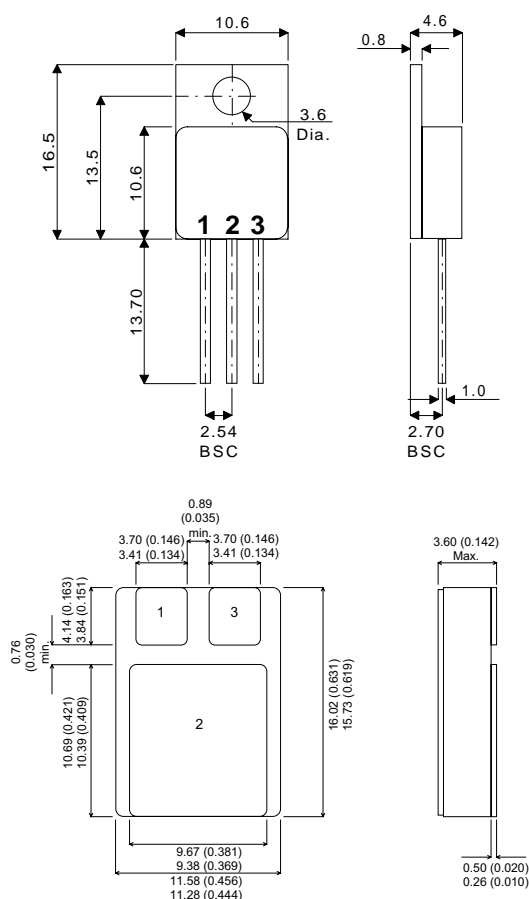


**MECHANICAL DATA**

Dimensions in mm

## 8 VOLT POSITIVE VOLTAGE REGULATOR



PIN 1 - Input      PIN 2 - Ground      PIN 3 - Output

**TO220M**    - TO220 Metal Package - Isolated  
**SMD1**        - Ceramic Surface Mount Package  
 Also available in TO39 Package.

**FEATURES**

- HERMETIC TO220 METAL OR CERAMIC SURFACE MOUNT PACKAGES
- SCREENING OPTIONS AVAILABLE
- ALL LEADS ISOLATED FROM CASE (METAL PACKAGE)
- 8 VOLT REGULATOR
- OUTPUT CURRENT UP TO 1.5A
- THERMAL OVERLOAD PROTECTION
- SHORT CIRCUIT PROTECTION
- OUTPUT TRANSISTOR SOA PROTECTION

**ABSOLUTE MAXIMUM RATINGS** ( $T_{case} = 25^{\circ}C$  unless otherwise stated)

$V_i$	DC Input Voltage	35V
$I_O$	Output Current	Internally limited
$P_D$	Power Dissipation	Internally limited
$T_j$	Junction Temperature	150°C
$T_{stg}$	Storage Temperature	-65 to 150°C

**ELECTRICAL CHARACTERISTICS** ( $T_{\text{case}} = 25^{\circ}\text{C}$  unless stated)

OUTPUT VOLTAGE			8			
INPUT VOLTAGE (unless otherwise specified)			14			
Parameter		Test Conditions	Min.	Typ.	Max.	Unit
V <sub>O</sub> Output Voltage	T <sub>j</sub> = 25°C		7.7	8	8.3	V
	I <sub>O</sub> = 5mA to 1A	P <sub>O</sub> ≤ 15W	7.6	8 (V <sub>i</sub> = 11.6 to 23V)	8.4	
ΔV <sub>O</sub> Line Regulation	T <sub>j</sub> = 25°C		80 (V <sub>i</sub> = 10.5 to 25V)			mV
			40 (V <sub>i</sub> = 11 to 17V)			
ΔV <sub>O</sub> Load Regulation	I <sub>O</sub> = 5mA to 1.5A	T <sub>j</sub> = 25°C	100			mV
	I <sub>O</sub> = 250 to 750 mA	T <sub>j</sub> = 25°C	50			
I <sub>d</sub> Quiescent Current	T <sub>j</sub> = 25°C		8			mA
ΔI <sub>d</sub> Quiescent Current Change	I <sub>O</sub> = 5mA to 1A		0.5			mA
			1 (V <sub>i</sub> = 11.5 to 25V)			
$\frac{\Delta V_O}{\Delta T}$ Output Voltage Drift	I <sub>O</sub> = 5mA		−1			mV / °C
e <sub>N</sub> Output Noise Voltage	B = 10Hz to 100kHz	T <sub>j</sub> = 25°C	40			μV
SVR    Supply Voltage Rejection	f = 100Hz		62 (V <sub>i</sub> = 11.5 to 21.5V)			dB
V <sub>d</sub> Dropout Voltage	I <sub>O</sub> = 1A ΔV <sub>O</sub> = 100mV	T <sub>j</sub> = 25°C	2			V
I <sub>sc</sub> Short Circuit Current	V <sub>I</sub> = 35V	T <sub>j</sub> = 25°C	750			mA
I <sub>scp</sub> Short Circuit Peak Current	T <sub>j</sub> = 25°C		2.2			A

**THERMAL DATA**

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