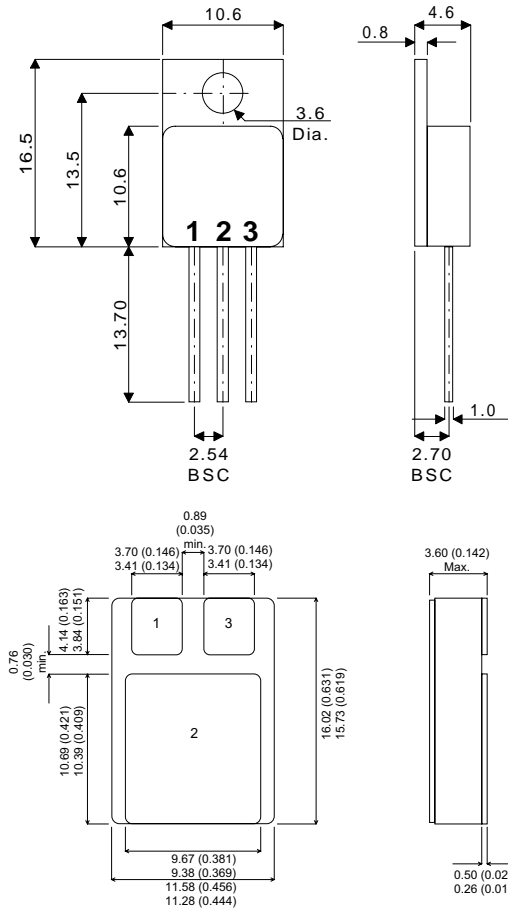


MECHANICAL DATA
Dimensions in mm

**POSITIVE
VOLTAGE REGULATOR
TO 220 M**



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

TO220M -TO220 Metal Package - Isolated
SMD1 -Ceramic Surface Mount Package

FEATURES

- HERMETIC TO220 METAL OR CERAMIC SURFACE MOUNT PACKAGES
- SCREENING OPTIONS AVAILABLE
- ALL LEADS ISOLATED FROM CASE (METAL PACKAGE)
- OUTPUT CURRENT UP TO 1.5A
- OUTPUT VOLTAGES OF 5, 12, 15, 24V
- 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 (for $V_O = 5$ to 15V) (for $V_O = 24V$)	35V 40V
I_O	Output Current	Internally limited
P_D	Power Dissipation	Internally limited
T_j	Junction Temperature	0 to 125°C
T_{stg}	Storage Temperature	-65 to 150°C

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

OUTPUT VOLTAGE		5			12			15			24				
INPUT VOLTAGE (unless otherwise specified)		10			19			23			33				
Parameter	Test Conditions	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Unit	
V_O Output Voltage	$T_j = 25^{\circ}C$	4.8	5	5.2	11.5	12	12.5	14.4	15	15.6	23	24	25	V	
	$I_O = 5mA$ to 1A $P_O \leq 15W$	4.75	5	5.25	11.4	12	12.6	14.25	15	15.75	22.8	24	25.2		
ΔV_O Line Regulation	$T_j = 25^{\circ}C$	3 100			240			300			480			mV	
		$(V_I = 7$ to 25V)			$(V_I = 14.5$ to 30V)			$(V_I = 17.5$ to 30V)			$(V_I = 27$ to 38V)				
ΔV_O Load Regulation	$T_j = 25^{\circ}C$ $I_O = 5mA$ to 1.5A $I_O = 250$ to 750 mA	1 50			120			150			240			mV	
		$(V_I = 8$ to 12V)			$(V_I = 16$ to 22V)			$(V_I = 20$ to 26V)			$(V_I = 30$ to 36V)				
I_d Quiescent Current	$T_j = 25^{\circ}C$	8			8			8			8			mA	
ΔI_d Quiescent Current Change	$I_O = 5mA$ to 1A	0.5			0.5			0.5			0.5			mA	
		1.3			1			1			1			mA	
$\frac{\Delta V_O}{\Delta T}$ Output Voltage Drift		$I_O = 5mA$			-1.1			-1			-1			mV / $^{\circ}C$	
e_N Output Noise Voltage	B = 10Hz to 100kHz $T_j = 25^{\circ}C$	40			75			90			170			μV	
SVR Supply Voltage Rejection	f = 120Hz $I_O = 500mA$	62 $(V_I = 8$ to 18V)			55 $(V_I = 15$ to 25V)			54			50			dB	
V_d Dropout Voltage	$T_j = 25^{\circ}C$ $I_O = 1A$ $\Delta V_O = 100mV$	2			2			2			2			V	
I_{sc} Short Circuit Current	$T_j = 25^{\circ}C$ $V_I = 35V$	750			350			230			150			mA	
I_{scp} Short Circuit Peak Current	$T_j = 25^{\circ}C$ $V_1 - V_0 < 10V$ 5mS	2.2			2.2			2.1			2.1			A	

THERMAL DATA (for TO220M and SMD1)

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