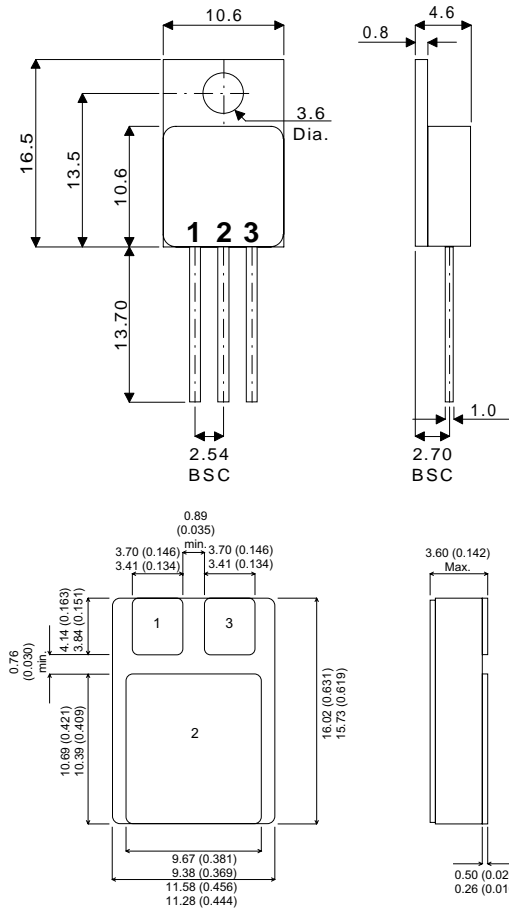


MECHANICAL DATA
Dimensions in mm

**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	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)						
ΔV_O Load Regulation	$T_j = 25^{\circ}C$ $I_O = 250$ to 750 mA	100		240		300		480						mV
		50		120		150		240						
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
	$(V_I = 7$ to 25V)			$(V_I = 14.5$ to 30V)		$(V_I = 17.5$ to 30V)		$(V_I = 27$ to 38V)						
$\frac{\Delta V_O}{\Delta T}$ Output Voltage Drift	$I_O = 5mA$	-1.1		-1		-1		-1.5						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		55		54		50						dB
	$(V_I = 8$ to 18V)			$(V_I = 15$ to 25V)										
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. $50^{\circ}C / W$