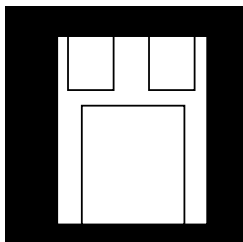


HERMETIC SURFACE MOUNT ADJUSTABLE POSITIVE VOLTAGE REGULATOR



Three Terminal, Adjustable Voltage, 3.0 Amp Precision Positive Regulator In Hermetic Surface Mount Package

FEATURES

- Hermetic Surface Mount Package
- Reference Voltage Set To $\pm 2\%$
- Built-In Thermal Overload Protection
- Short Circuit Current Limiting
- Product Is Available Hi-Rel Screened
- Electrically Similar To Industry Standard Type LM150A

DESCRIPTION

These three terminal positive regulators are supplied in a hermetically sealed surface mount package. All protective features are designed into the circuit including thermal shutdown, current limiting and safe-area control. With heat sinking, they can deliver over 3.0 amps of output current. These units feature 2% initial voltage tolerance, with 0.3% load regulation and .01% line regulation.

ABSOLUTE MAXIMUM RATINGS

Input to Output Voltage Differential +35 V
 Operating Junction Temperature Range - 55°C to + 150°C
 Storage Temperature Range - 55°C to + 150°C
 Typical Power/Thermal Characteristics:

Rated Power @ 25°C

T_C 25W

T_A 3W

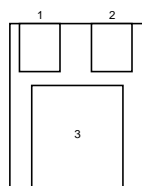
Thermal Resistance:

θ_{JC} 3.5°C/W

θ_{JA} 42°C/W

Lead Temperature at Case (5 sec) 225°C

PIN CONNECTION

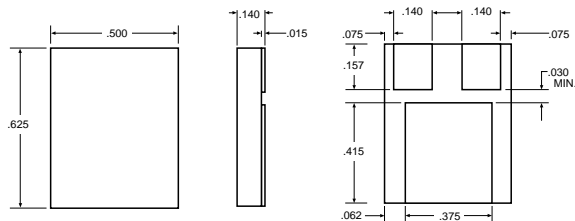


Pin 1: Adjust

Pin 2: V_{IN}

Pin 3: V_{OUT}

MECHANICAL OUTLINE



TOP VIEW

SIDE VIEW

BOTTOM VIEW

3.5



ELECTRICAL CHARACTERISTICS -55°C T_A 125°C (Note 1) unless otherwise specified

Test	Symbol	Conditions	Limits		Unit
			Min.	Max.	
Reference Voltage	V_{REF}	$I_{OUT} = 10mA$ $T_A = 25^\circ C$	1.20	1.30	V
		3.0V ($V_{IN} - V_{OUT}$) 35V, P 30W 10mA I_{OUT} 3.0A (Note 2)	1.20	1.30	V
Line Regulation (Note 2)	$\frac{V_{OUT}}{V_{IN}}$	3.0V ($V_{IN} - V_{OUT}$) 35V, $I_{OUT} = 10mA$, $T_J = 25^\circ C$		0.01	%/V
		3.0V ($V_{IN} - V_{OUT}$) 35V, $I_{OUT} = 10mA$		0.05	%/
Load Regulation (Note 2)	$\frac{V_{OUT}}{I_{OUT}}$	10mA I_{OUT} 3.0A, $V_{OUT} = 5.0A$, $T_J = 25^\circ C$		17.5	mV
		10mA I_{OUT} 3.0A, $V_{OUT} = 5.0A$		50	mV
		10mA I_{OUT} 3.0A, $V_{OUT} = 5.0A$, $T_J = 25^\circ C$		0.35	%
		10mA I_{OUT} 3.0A, $V_{OUT} = 5.0A$		1.0	%
Thermal Regulation		20ms pulse, $T_A = 25^\circ C$		0.01	%/W
Ripple Rejection (Note 3)	$\frac{V_{IN}}{V_{REF}}$	$V_{OUT} = 10V$, $f = 120Hz$ $C_{ADJ} = 10\mu F$	66		dB
Adjust Pin Current	I_{Adj}			100	μA
Adjust Pin Current Change	I_{Adj}	10mA I_{OUT} 3.0A, $I_{OUT} = 10mA$ 3.0V ($V_{IN} - V_{OUT}$) 35V		5.0	μA
Minimum Load Current	I_{MIN}	$(V_{IN} - V_{OUT}) = 35V$		5.0	mA
Current Limit	I_{CL}	$(V_{IN} - V_{OUT}) = 10V$	3.0		A
		$(V_{IN} - V_{OUT}) = 30V$	0.3		A

Notes:

1. Unless otherwise specified, these specifications apply for $(V_{IN} - V_{OUT}) = 5.0V$ and $I_{OUT} = 1.5A$. Although power dissipation is internally limited, these characteristics are applicable for power dissipation up to 30W.
2. Regulation is measured at a constant junction temperature using a pulse technique. Changes in output voltage due to heating effects are covered under the specification for thermal regulation.
3. Guaranteed if not tested to the limits specified.