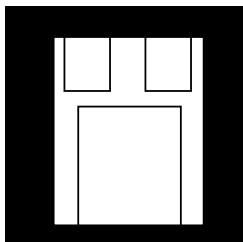


HERMETIC SURFACE MOUNT ADJUSTABLE NEGATIVE VOLTAGE REGULATORS



**Three Terminal, Adjustable Voltage,
3.0 Amp Precision Negative Regulators
In Hermetic Surface Mount Package**

FEATURES

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

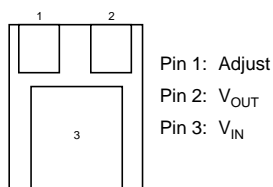
DESCRIPTION

These three terminal negative regulators are supplied in a hermetic 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 1.0% load regulation and .015% line regulation.

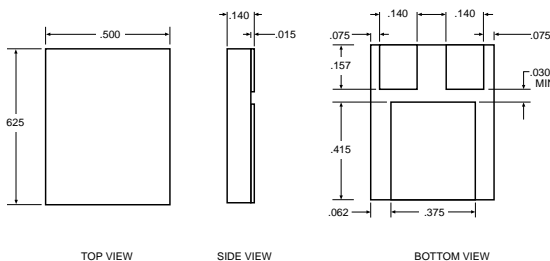
ABSOLUTE MAXIMUM RATINGS

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	28W
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



MECHANICAL OUTLINE



3.5

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

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Reference Voltage	V_{REF}	$ V_{IN} - V_{OUT} = 5\text{ V}, I_{OUT} = 5\text{ mA}, T_A = 25^\circ\text{ C}$	-1.238	-1.262	V
		3 V $ V_{IN} - V_{OUT} $ 35 V	• -1.215	-1.285	
Line Regulation (Note 1)	$\frac{V_{OUT}}{V_{IN}}$	3 V $ V_{IN} - V_{OUT} $ 35 V		0.015	%V
			•	0.04	
Load Regulation (Note 1)	$\frac{V_{OUT}}{I_{OUT}}$	$ V_{OUT} = 5\text{ V}, T_A = 25^\circ\text{ C}$ 10 mA I_{OUT} $I_{MAX.}$		50	mV
			•	75	
		$ V_{OUT} = 5.0\text{ V}$ 10 mA I_{OUT} $I_{MAX.}$		1.0	%
	•	1.5			
Thermal Regulation	-	30 ms pulse, $T_A = 25^\circ\text{ C}$		0.02	%/W
Ripple Rejection (Note 2)	$\frac{V_{IN}}{V_{REF}}$	$ V_{OUT} = -10\text{ V}, f = 120\text{ Hz}, C_{Adj} = 0$		56	dB
			•	53	
		$ V_{OUT} = -10\text{ V}, f = 120\text{ Hz}, C_{Adj} = 10\text{ }\mu\text{F}$		70	dB
	•	60			
Adjust Pin Current	I_{Adj}	$V_{DIFF} = 35\text{ V}, I_L = 10\text{ mA}$	•	100	μA
Adjust Pin Current Change	I_{Adj}	10 mA I_{OUT} $I_{MAX.}$	•	2.0	μA
		3 V $ V_{IN} - V_{OUT} $ 35 V	•	5.0	
Minimum Load Current	I_{Min}	$ V_{IN} - V_{OUT} $ 35 V	•	5.0	mA
		$ V_{IN} - V_{OUT} $ 10 V	•	3.0	
Current Limit	I_{Lim}	$ V_{IN} - V_{OUT} $ 10 V		3.0	A
			•	3.0	
		$ V_{IN} - V_{OUT} = 35\text{ V}$		0.5	2.5
	•	0.5			
Temperature Stability (Note 2)	$\frac{V_{OUT}}{T}$	-55°C T_J +125°C	•	1.5	%
Long Term Stability (Note 2)	$\frac{V_{OUT}}{T}$	$T_A = +125^\circ\text{ C}, t = 1000\text{ hrs}$		1.0	%

Notes:

- Line and Load Regulation are measured at a constant junction temperature using a low duty cycle pulse technique. Although power dissipation is internally limited, regulation is guaranteed up to the maximum power dissipation of 30 W. Power dissipation is determined by the input/output differential voltage and the output current. Guaranteed maximum power dissipation will not be available over the full input/output voltage range.
- Guaranteed by design, characterization or correlation to other tested parameters.
- The • denotes the specifications which apply over the full operating temperature range.