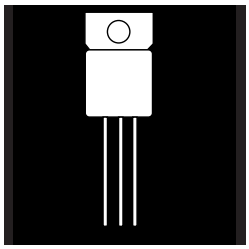
(COTS) COMMERCIAL OFF-THE-SHELF 3.0 AMP POSITIVE ADJUSTABLE VOLTAGE REGULATOR IN TO-257 PACKAGE



Three Terminal, Adjustable Voltage, 3.0 Amp Precision Positive Regulator In Hermetic JEDEC TO-257AA Package

FEATURES

- Isolated Hermetic Package, JEDEC TO-257AA Outline
- Reference Voltages Set To ± 2%
- Built-In Thermal Overload Protection
- Short Circuit Current Limiting

DESCRIPTION

These three terminal positive regulators are supplied in a hermetically sealed isolated, metal TO-257 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, 0.35% load regulation and .01% line regulation.

ABSOLUTE MAXIMUM RATINGS @ 25°C

Input - Output Voltage Differential ..... +35 V
Operating Junction Temperature Range ..... - 55°C to + 150°C
Storage Temperature Range ..... - 65°C to + 150°C

Typical Power/Thermal Characteristics:
Rated Power @ 25°C
T_C ..... 25 W
T_A ..... 3 W
Thermal Resistance ..... 4.2°C/W
$Ø_{JA}$ ..... 50°C/W

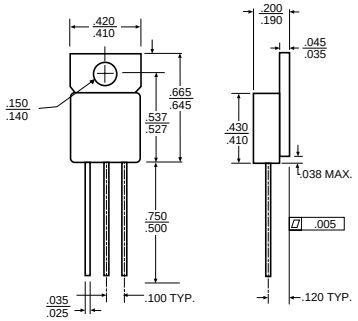
ELECTRICAL CHARACTERISTICS -55°C T_A 125°C (Note 1) unless otherwise specified

Test	Symbol	Conditions		Limits Min.	Limits Max.	Unit
Reference Voltage	V_{REF}	I_{OUT} = 10mA T_A = 25°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)	R_{LINE}	3.0V (V_{IN} - V_{OUT}) 35V, I_{OUT} = 10mA, T_J = 25°C			0.01	%/V
		3.0V (V_{IN} - V_{OUT}) 35V, I_{OUT} = 10mA			0.05	%/V
Load Regulation (Note 2)	R_{LOAD}	10mA I_{OUT} 3.0A, V_{OUT} 5.0A, T_J = 25°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°C		0.35	%	
		10mA I_{OUT} 3.0A, V_{OUT} 5.0A		1.0	%	
Thermal Regulation		20ms pulse, T_A =25°C			0.01	%/W
Ripple Rejection (Note 3)	R_N	V_{OUT} = 10V, f = 120Hz C_{ADJ} = 10µF		66		dB
Adjust Pin Current	I_{Adj}				100	µA
Adjust Pin Current Change	ΔI_{Adj}	10mA I_{OUT} 3.0A, I_{OUT} = 10mA 3.0V (V_{IN} - V_{OUT}) 35V		5.0	µA	
Miminum 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

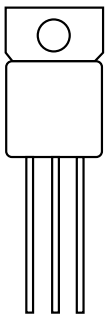
Notes:

1. Unless otherwise specified, these specifications apply for (V_{IN} - V_{OUT}) = 5.0V and I_{OUT} = 1.5A.
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.

MECHANICAL OUTLINE
TO-257AA



PIN CONNECTION



Front View
Pin 1: Adjust
Pin 2: Vout
Pin 3: Vin
Tab: Isolated

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