



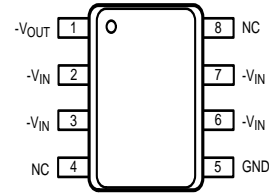
DESCRIPTION

This series of fixed-voltage monolithic integrated circuit voltage regulators is designed for a wide range of applications. These applications include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. In addition, they can be used with power-pass elements to make high-current voltage regulators. Each of these regulators can deliver up to 100mA of output current. The internal limiting and thermal shutdown features of these regulators make them essentially immune to overload. When used as a replacement for a Zener diode-resistor combination, an effective improvement in output impedance can be obtained together with lower-bias current.

FEATURES

- 3-Terminal Regulators
- Output Current Up to 100mA
- No External Components
- Internal Thermal Overload Protection
- Internal Short-Circuit Limiting

PIN CONNECTIONS



SOP-8

Absolute maximum ratings over operating temperature range (unless otherwise noted)

Input voltage	-30	V
Operating free-air, case, or virtual junction temperature range	0 to 150	°C
Storage temperature range	-65 to 150	
Lead temperature 1.6 mm (1/16 inch) from case for 10 seconds	260	

Recommended operating conditions

Parameter	MIN	MAX	UNIT
Input voltage, V_I	-7	-20	V
Output current, I_o		100	mA
Operating temperature range, T_J	-25	85	°C



**Electrical characteristics at specified virtual junction temperature, $V_I=-10V$, $I_O=40mA$
(unless otherwise noted)**

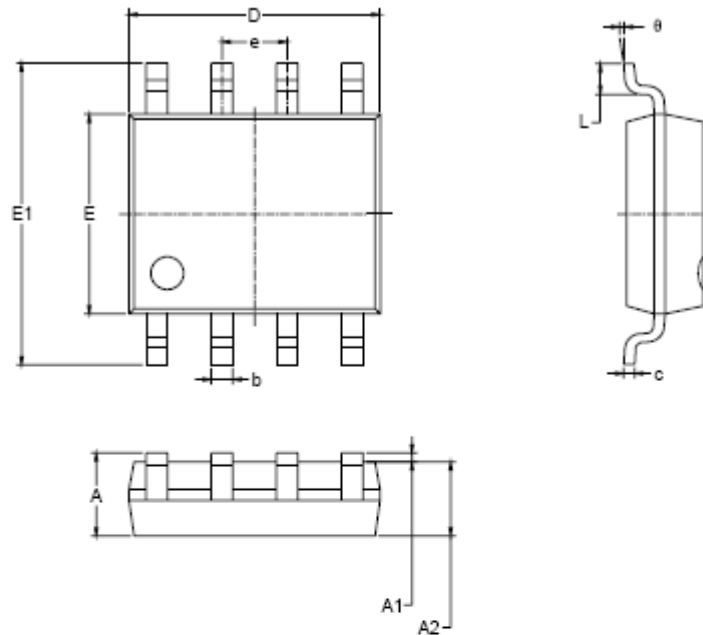
PARAMETER	TEST CONDITIONS*		MIN	TYP	MAX	UNIT
Output voltage**		25°C	-4.8	-5	-5.2	V
	$I_O=1mA$ to 40mA $V_I=-7V$ to -20V	0 to 125 °C	-4.75	-5	-5.25	
	$I_O=1mA$ to 70mA		-4.75	-5	-5.25	
Input regulation	$V_I=-7V$ to -20V	25°C		15	150	mV
	$V_I=-8V$ to -20V			12	100	
Ripple rejection	$V_I=-8V$ to -18V, $f=120Hz$	25°C	41	49		dB
Output regulation	$I_O=1mA$ to 100mA	25°C		20	60	mV
	$I_O=1mA$ to 40mA			10	30	
Output noise voltage	$f=10Hz-100Hz$	25°C		40		μV
Dropout voltage		25°C		1.7		V
Bias current		25°C		3.8	6	mA
		125°C			5.5	
Bias current change	$V_I=-8V$ to -20V	0 to 125 °C			1.5	
	$I_O=1mA$ to 40mA				0.1	

*Pulse testing techniques are used to maintain the junction temperature as close to the ambient temperature as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 0.33μF capacitor across the input and a 0.1μF capacitor across the output.

**This specification applies only for dc power dissipation permitted by absolute maximum ratings.



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Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.008	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.27 BSC		0.050 BSC	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°



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