



Description

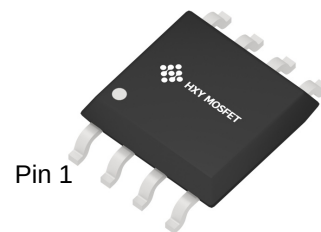
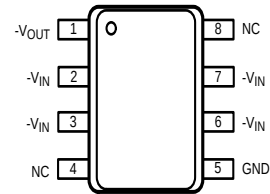
This series of fixed-voltage monolithic integrated circuit voltage regulators is designed for a wide range of applications. These applications include on-card regulation for elimination of noise and distribution problem associated with single-point regulation. In addition, they can be used with power-pass 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 Configuration

SOP-8(SOIC-8)



Absolute Maximum Ratings

Symbol	Parameter	Value	Units
V_I	Input voltage	-30	V
I_{CM}	Maximum output current	-100	mA
P_D	Power dissipation	500	mW
T_{OPR}	Operating junction temperature	0 to +125	°C
T_J, T_{stg}	Storage temperature range	-40 to +150	°C



Electrical Characteristics $V_I=-10V$, $I_O=40mA$

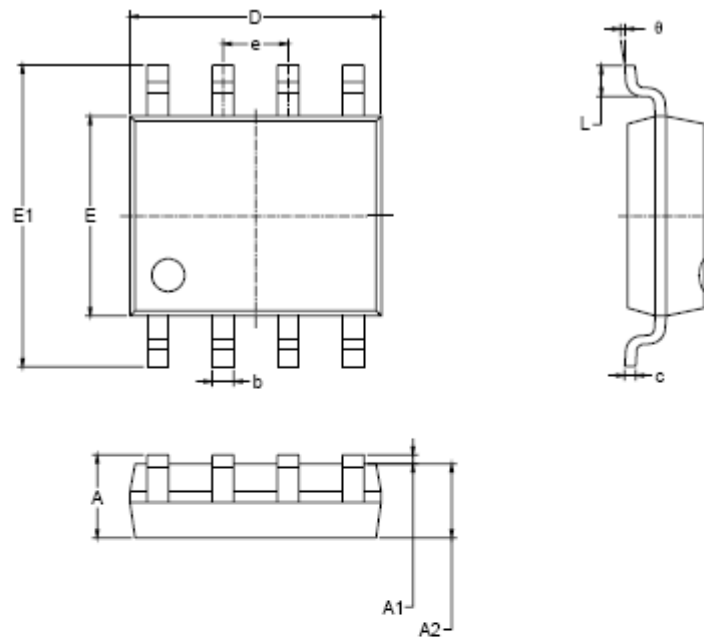
Parameter	Test Conditions*		Min	Typ	Max	Unit
Output voltage**		25°C	-4.8	-5	-5.2	V
	$I_O=1mA$ to 40mA $V_I=-7V$ to -20V	0 to 125 °C	-4.75	-5	-5.25	
	$I_O=1mA$ to 70mA		-4.75	-5	-5.25	
Input regulation	$V_I=-7V$ to -20V	25°C		15	150	mV
	$V_I=-8V$ to -20V			12	100	
Ripple rejection	$V_I=-8V$ to -18V, $f=120Hz$	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.



SOP-8(SOIC-8) Package Information



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	0.006	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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