

Continental Device India Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company



POSITIVE VOLTAGE REGULATOR



pin 1.Output 2.Ground 3.Input LM78L08

TO-92 Plastic Package

Fixed Voltage Monolithic Integrated Circuit Voltage Regulators is Desigbed for a Wide Range of Applications

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Input Voltage	V_{IN}	30	V
Power Dissipation	P_{D}	625	mW
Operating free air, Case, or Virtual Junction Temperature Range	T _j	0 to 150	°C
Storage Temperature Range	T _{stg}	- 65 to +150	°С
Lead Temperature 1.6mm (1/16inch) from Case for 10 seconds	T _L	260	°C

Recommended Operating Conditions

DESCRIPTION	SYMBOL	MIN	TYP	MAX	UNIT
Input Voltage	V _I	10.5		23	V
Output Current	Ι _ο			100	mA
Operating Junction Temperature	T_j	0		125	٥C

ELECTRICAL CHARACTERISTICS

(At Specified Virtual Junction Temperature, V_I=14V, I_O=40mA, (unless specified otherwise)

DESCRIPTION	SYMBOL	*TEST CONDITION	MIN	TYP	MAX	UNIT
Output Voltage	**Vo	25°C	7.7		8.3	V
		$I_O=1$ mA to 40mA, 0°C to 125°C	7.6		0.4	V
		V_1 =10.5V to 23V, 0°C to 125°C	7.6		8.4	V
		I _O =1mA to 70mA, 0°C to 125°C	7.6		8.4	V
Line Regulation	R _{BGIN}	V_1 =10.5V to 23V, 25°C			175	mV
		V _I =11 to 23V, 25°C			125	mV
Ripple Rejection	R _R	V _I =13V to 23V, f=120Hz, 0°C to125°C	37			dB
Load Regulation	R _{BGL}	I _O =1mA to100mA, 25°C			80	mV
		$I_O=1$ mA to 40mA, 25°C			40	mV
Output Noise Voltage	V_{NO}	f=10Hz to 100KHz, 25°C		54		μV
Dropout Voltage	V _{DIF (min)}	25°C		1.7		V
Quiescent Current	ΙQ	25°C			6.0	mA
		125ºC			5.5	mΑ
Quiescent Current Change	ΔI_{QIN}	V_I =11V to 23V, 0°C to 125°C			1.5	mA
	ΔI_{QL}	I _O =1mA to 40mA, 0°C to 125°C			0.1	mA

^{*}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 0.33 mF capacitor across the input and 0.1 mF capacitor across the output

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

Customer Notes LM78L08

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Component Disposal Instructions

- 1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
- 2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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