





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

VOLTAGE REGULATOR

LM78L05



pin 1.Output 2.Ground 3.Input TO-92 Plastic Package

The Voltages Available allow these Regulators to be used in Logic Systems, Instrumentation, Hi-Fi Audio Circuits and other Solid State Electronic Equipment

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

DESCRIPTION	SYMBOL	VALUE	UNIT
Input Voltage	V_{IN}	30	V
Power Dissipation	P_{D}	625	mW
Junction to Ambient in free air	T_{amb}	- 20 to +80	°C
Storage Temperature Range	T_{stg}	- 55 to +150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Output Voltage	Vo	V _I =10V, I _O =40mA	4.80		5.20	V
		I _O =1mA to 40mA, 0°C to 125°C	4.75		5.25	V
		V _I =7V to 20V, 0°C to 125°C	4.75		5.25	V
Ripple Rejection	R_R	V _I =8V to 18V, f=120Hz	41			dB
Line Regulation	R _{BGIN}	V_{I} =7V to 20V, I_{O} =40mA			150	mV
		V _I =8 to 20V			100	mV
Load Regulation	R _{BGL}	I _O =1mA to 100mA, V _I =10V			60	mV
		I _O =1mA to 40mA			30	mV
Output Noise Voltage	V _{NO}	f=10Hz to 100KHz		42		μV
Dropout Voltage	V _{DIF (min)}	V _I =10V, I _O =40mA		1.7		V
Quiescent Current	ΙQ	V _I =10V, I _O =40mA, T _a =25°C			6.0	mA
		$V_1 = 10V, I_0 = 40 \text{mA}, T_a = 125^{\circ}\text{C}$			5.5	mA
Quiescent Current Change	ΔI_{QIN}	V _I =8V to 20V, I _O =40mA, T _a =0°C to 125°C			1.5	mA
	ΔI_{QL}	$I_O=1$ mA to 40mA, $V_I=10$ V $T_a=0$ °C to 125°C			0.1	mA

LM78L05Rev041004E

Customer Notes LM78L05

TO-92 Plastic Package

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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