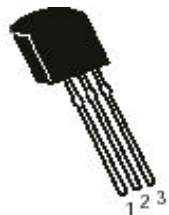


VOLTAGE REGULATOR

LM78L05

TO-92

Plastic Package



pin 1.Output
2.Ground
3.Input

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 ($T_a=25^\circ\text{C}$)

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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless specified otherwise)

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

LM78L05Rev041004E

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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