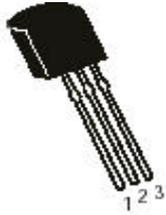


## VOLTAGE REGULATOR

**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

DESCRIPTION	SYMBOL	VALUE	UNIT
Input Voltage	$V_{IN}$	30	V
Power Dissipation	$P_D$	625	mW
Operating Junction Temperature Range	$T_j$	0 to 150	°C
Storage Temperature Range	$T_{stg}$	- 65 to +150	°C
Lead Temperature 1.6mm (1/16inch) from Case for 10 seconds	$T_L$	260	°C
Thermal Resistance Junction to Ambient	$R_{th(j-a)}$	200	°C/W

### Recommended Operating Conditions

DESCRIPTION	SYMBOL	MIN	TYP	MAX	UNIT
Input Voltage	$V_I$	7		20	V
Output Current	$I_O$			100	mA
Operating Junction Temperature	$T_j$	0		125	°C

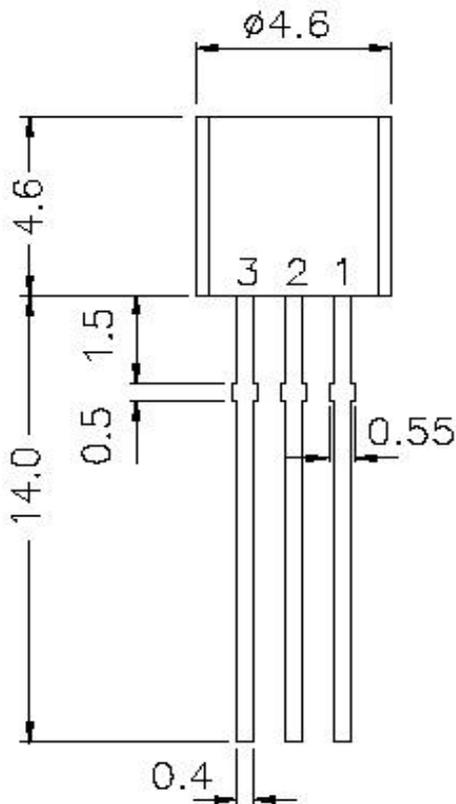
### ELECTRICAL CHARACTERISTICS

(At Specified Virtual Junction Temperature,  $V_I=10V$ ,  $I_O=40mA$ , (unless specified otherwise))

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Output Voltage	$V_O$	25°C	4.80		5.20	V
		$I_O=1mA$ to 40mA, 0°C to 125°C $V_I=7V$ to 20V, 0°C to 125°C	4.75		5.25	V
		$I_O=1mA$ to 70mA, 0°C to 125°C	4.75		5.25	V
Line Regulation	$R_{BGIN}$	$V_I=7V$ to 20V, 25°C			150	mV
		$V_I=8$ to 20V, 25°C			100	mV
Ripple Rejection	$R_R$	$V_I=8V$ to 18V, $f=120Hz$ , 25°C	41			dB
Load Regulation	$R_{BGL}$	$I_O=1mA$ to 100mA, 25°C			60	mV
		$I_O=1mA$ to 40mA, 25°C			30	mV
Output Noise Voltage	$V_{NO}$	$f=10Hz$ to 100KHz, 25°C		42		µV
Dropout Voltage	$V_{DIF(min)}$	25°C		1.7		V
Quiescent Current	$I_Q$	25°C			6.0	mA
		125°C			5.5	mA
Quiescent Current Change	$\Delta I_{QIN}$	$V_I=8V$ to 20V, 0°C to 125°C			1.5	mA
	$\Delta I_{QL}$	$I_O=1mA$ to 40mA, 0°C to 125°C			0.1	mA

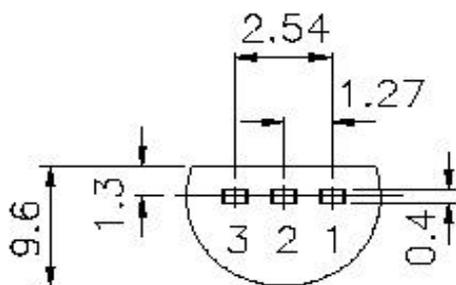
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PACKAGE TO-92



ALL DIMENSIONS ARE IN M.M.  
PIN CONFIGURATION:—

- 1. Input
- 2. Ground
- 3. Output



**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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Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150,4141 1112 Fax + 91-11-2579 5290, 4141 1119

email@cdil.com www.cdilsemi.com