

78L05

Three-terminal positive voltage regulator

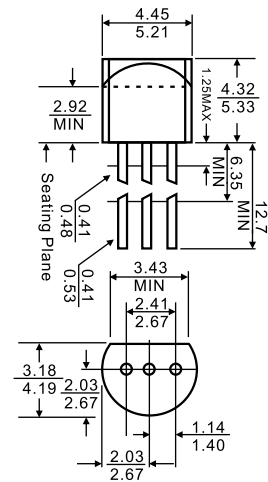
TO-92



1. OUT
2. GND
3. IN

Features

- ✧ Maximum Output current I_O : 0.1 A
- ✧ Output voltage V_O : 5 V
- ✧ Continuous total dissipation
 P_D : 0.625W ($T_a=25^\circ\text{C}$)



Dimensions in inches and (millimeters)

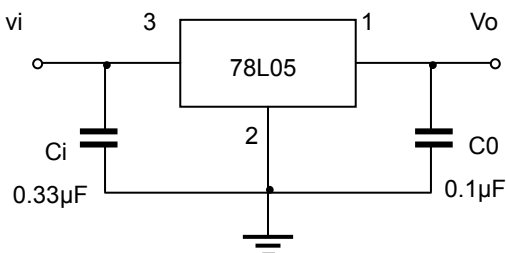
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	-40~+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($V_I=10\text{V}$, $I_O=40\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_O	25°C	4.75	5.0	5.25	V
		$7\text{V} \leq V_I \leq 20\text{V}$, $I_O=1\text{mA} \sim 40\text{mA}$	4.75	5.0	5.25	V
		$I_O=1\text{mA} \sim 70\text{mA}$	4.75	5.0	5.25	V
Load Regulation	ΔV_O	$I_O=1\text{mA} \sim 100\text{mA}$, 25°C		15	60	mV
		$I_O=1\text{mA} \sim 40\text{mA}$, 25°C		8	30	mV
Line regulation	ΔV_O	$8\text{V} \leq V_I \leq 20\text{V}$		32	200	mV
		$9\text{V} \leq V_I \leq 20\text{V}$, 25°C		26	150	mV
Quiescent Current	I_q	25°C		3.8	6	mA
Quiescent Current Change	ΔI_q	$8\text{V} \leq V_I \leq 20\text{V}$, $0 \sim 125^\circ\text{C}$			1.5	mA
	ΔI_q	$1\text{mA} \leq V_I \leq 40\text{mA}$, $0 \sim 125^\circ\text{C}$			0.2	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$, 25°C		40		μV
Ripple Rejection	RR	$8\text{V} \leq V_I \leq 20\text{V}$, $f=120\text{Hz}$, $0 \sim 125^\circ\text{C}$	41	49		dB
Dropout Voltage	V_d	25°C		1.7		V

TYPICAL APPLICATION



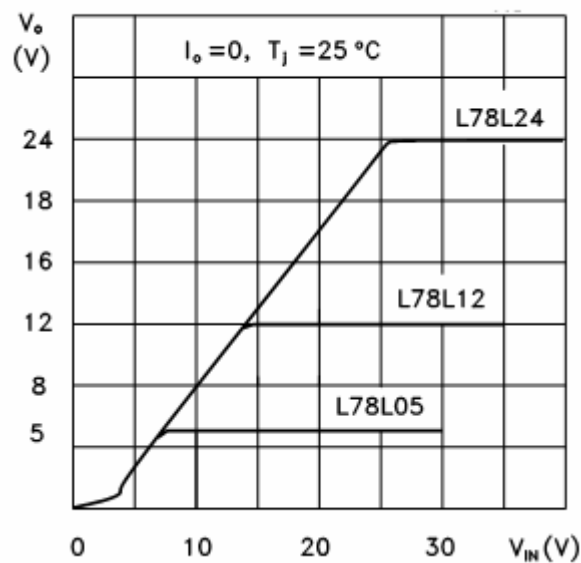
Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.

78L05

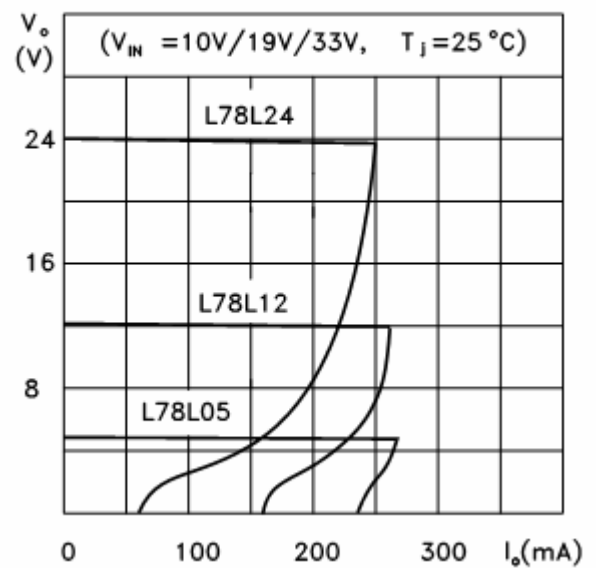
Three-terminal positive voltage regulator

Typical Characteristics

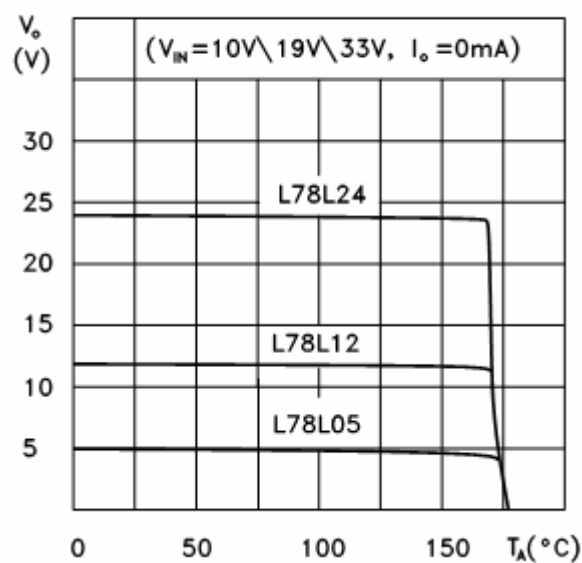
L78L05/12/24 Output Characteristics



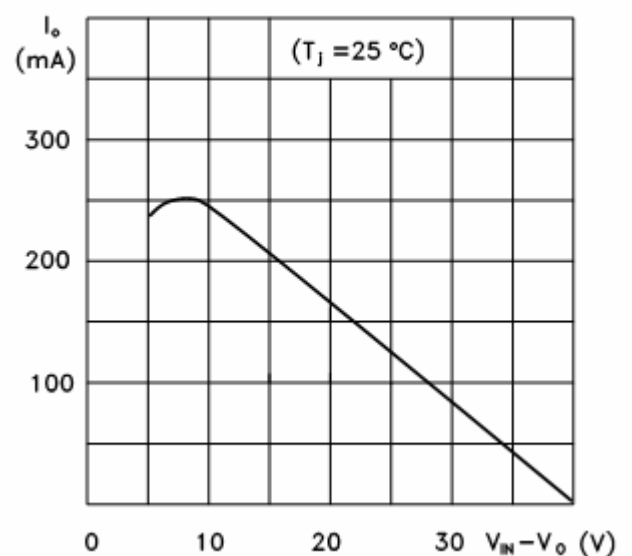
L78L05/12/24 Load Characteristics



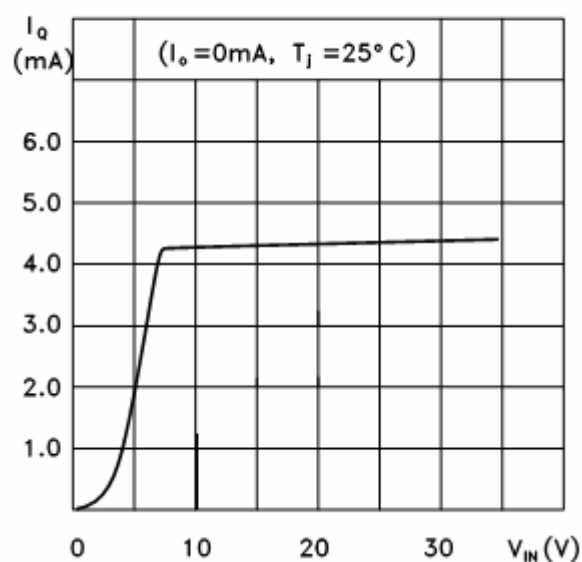
L78L05/12/24 Thermal Shutdown



L78L00 Series Short Circuit Output Current



L78L05 Quiescent Current vs Input Voltage



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [LDO Voltage Regulators](#) category:

Click to view products by [LGE](#) manufacturer:

Other Similar products are found below :

[AP7363-SP-13](#) [NCV8664CST33T3G](#) [L79M05TL-E](#) [L9454](#) [AP7362-HA-7](#) [PT7M8202B12TA5EX](#) [TCR3DF185,LM\(CT](#) [TLF4949EJ](#) [L9708](#)
[L970813TR](#) [NCP4687DH15T1G](#) [NCV8703MX30TCG](#) [NCV4269CPD50R2G](#) [AP7315-25W5-7](#) [AP2111H-1.2TRG1](#) [ZLDO1117QK50TC](#)
[NCP114BMX075TCG](#) [MC33269T-3.5G](#) [TLE4471GXT](#) [NCV4266-2CST33T3G](#) [NCP715SQ15T2G](#) [NCV8623MN-50R2G](#)
[NCV563SQ18T1G](#) [NCV8664CDT33RKG](#) [NCV4299CD250R2G](#) [NCP715MX30TBG](#) [NCV8702MX25TCG](#) [L974113TR](#) [TLE7270-2E](#)
[NCV562SQ25T1G](#) [NCP715MX53TBG](#) [AP2202K-2.6TRE1](#) [NCV8170BMX300TCG](#) [NCV8152MX300180TCG](#) [NCP700CMT45TBG](#)
[AP7315-33W5-7](#) [LD56100DPU28R](#) [NCP154MX180300TAG](#) [NJM2878F3-45-TE1](#) [S-1313D18-N4T1U4](#) [AP7343D-31FS4-7B](#) [AP7315D-](#)
[33FS4-7B](#) [LD59150PUR](#) [XC6215B3027R-G](#) [XC6216C201MR-G](#) [XC6504A2019R-G](#) [XC6504A2517R-G](#) [XC6504A251NR-G](#)
[XC6702D331ER-G](#) [NCP3334AMTADJTBG](#)