

## FEATURES

Maximum Output current I<sub>O</sub>: 0.1 A

Output voltage V<sub>O</sub>: 5 V

Continuous total dissipation P<sub>D</sub>:0.35 W (Ta =25 °C)

**78L05**



## ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies)

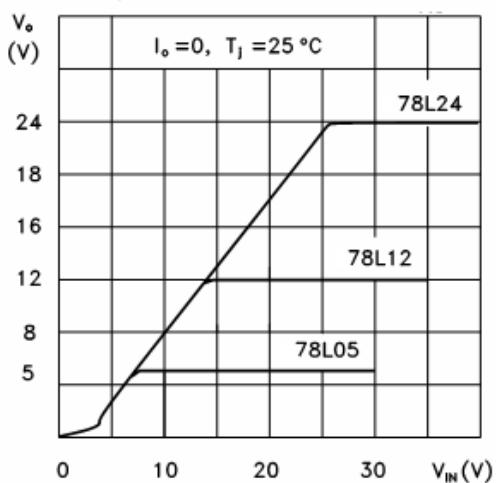
Parameter	Symbol	Value	Unit
Input Voltage	V <sub>I</sub>	30	V
Operating Junction Temperature Range	T <sub>OPR</sub>	0-125	°C
Storage Temperature Range	T <sub>STG</sub>	-65-150	°C

## ELECTRICAL CHARACTERISTICS (Vi=10V,Io=500mA,Ci=0.33μF, Co=0.1μF, unless otherwise specified )

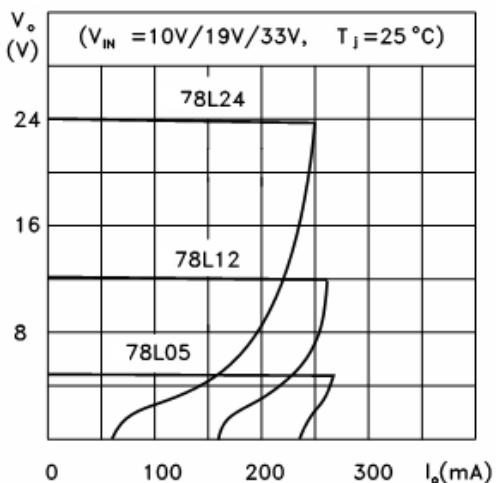
Parameter	Symbol	Test conditions		Min	Typ	Max	Unit	
Output voltage	V <sub>O</sub>			25 °C	4.8	5.0	5.2	V
		7V Vi 20V, Io=1mA~40mA	0-125 °C	4.75	5.0	5.25	V	
		Io=1mA~70mA		4.75	5.0	5.25	V	
Load Regulation	V <sub>O</sub>	Io=1mA~100mA	25 °C		15	60	mV	
		Io=1mA~40mA	25 °C		8	30	mV	
Line regulation	V <sub>O</sub>	7V V <sub>I</sub> 20V			32	150	mV	
		8V V <sub>I</sub> 20V	25 °C		26	100	mV	
Quiescent Current	I <sub>Q</sub>			25 °C		3.8	6	mA
Quiescent Current Change	I <sub>Q</sub>	8V V <sub>I</sub> 20V	0-125 °C			1.5	mA	
	I <sub>Q</sub>	1mA V <sub>I</sub> 40mA	0-125 °C			0.1	mA	
Output Noise Voltage	V <sub>N</sub>	10Hz f 100KHz	25 °C		42		uV	
Ripple Rejection	RR	8V V <sub>I</sub> 20V,f=120Hz	0-125 °C	41	49		dB	
Dropout Voltage	V <sub>d</sub>			25 °C		1.7		V

## 78L05 Typical Performance Characteristics

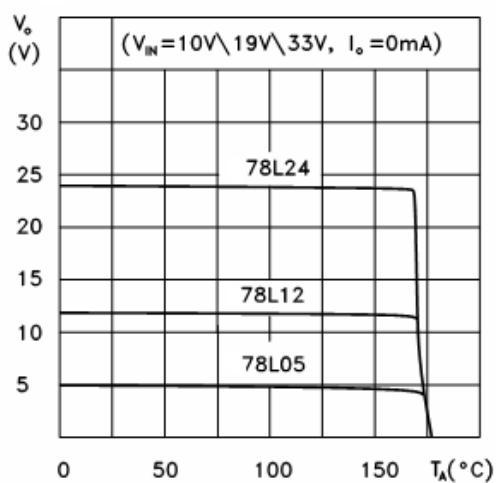
Output Characteristics



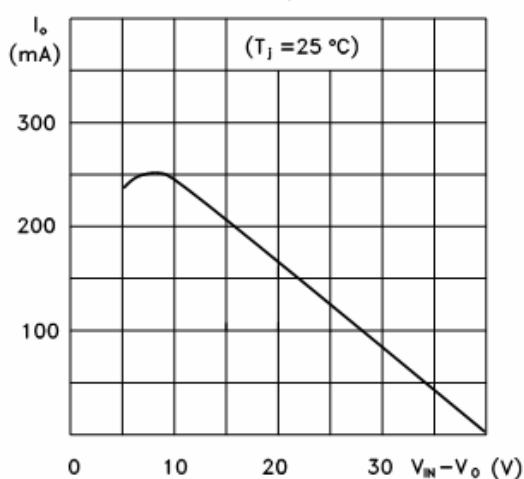
Load Characteristics



Thermal Shutdown



Short Circuit Output Current



Quiescent Current vs Input Voltage

