



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO.,LTD

SOT-89 Encapsulate Three-terminal Voltage Regulator

CJ78L15 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

I_{OM} : 0.1 A

Output voltage

V_O : 15 V

Continuous total dissipation

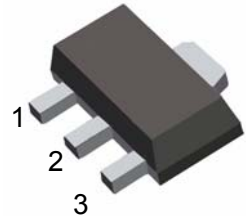
P_D : 0.50 W

SOT-89

1.OUT

2.GND

3.IN



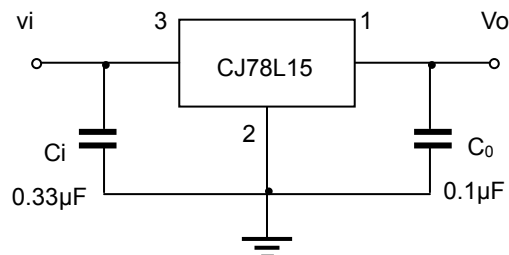
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0-+125	°C
Storage Temperature Range	T_{STG}	-55-+150	°C

ELECTRICAL CHARACTERISTICS ($V_i=23V, I_o=40mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions		MIN	TYP	MAX	UNIT
Output voltage	Vo		25°C	14.4	15	15.6	V
		17.5V≤Vi≤30V, Io=1mA-40mA	0-125°C	14.25	15	15.75	V
		Vi=23V, Io=1mA-70mA		14.25	15	15.75	V
Load Regulation	△Vo	Io=1mA-100mA, Vi=23V	25°C		25	150	mV
		Io=1mA-40mA, Vi=23V	25°C		15	75	mV
Line regulation	△Vo	17.5V≤Vi≤30V, Io=40mA	25°C		65	300	mV
		19V≤Vi≤30V, Io=40mA	25°C		58	250	mV
Quiescent Current	Iq		25°C		4.6	6.5	mA
Quiescent Current Change	△Iq	19V≤Vi≤30V, Io=40mA	0-125°C			1.5	mA
	△Iq	1mA≤Io≤40mA, Vi=23V	0-125°C			0.1	mA
Output Noise Voltage	VN	10Hz≤f≤100KHz	25°C		82		μV
Ripple Rejection	RR	18.5V≤Vi≤28.5V, f=120Hz	0-125°C	34	39		dB
Dropout Voltage	Vd		25°C		1.7		V

TYPICAL APPLICATION

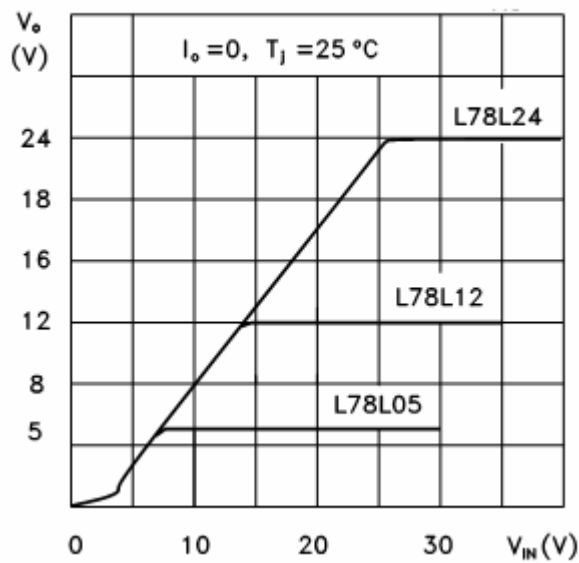


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

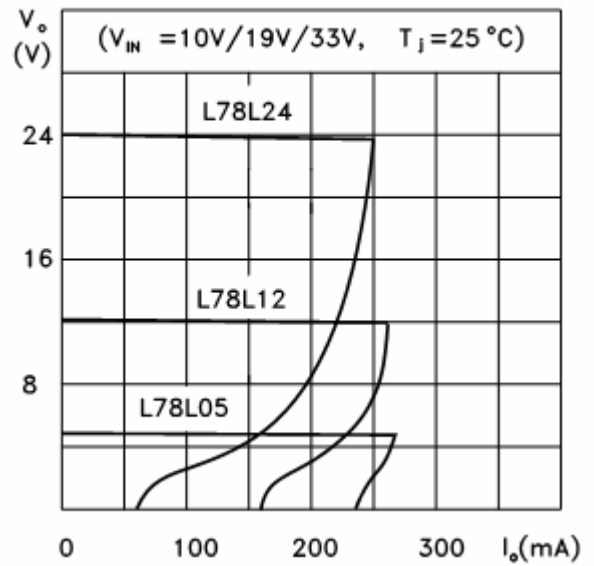
Typical Characteristics

CJ78LXX

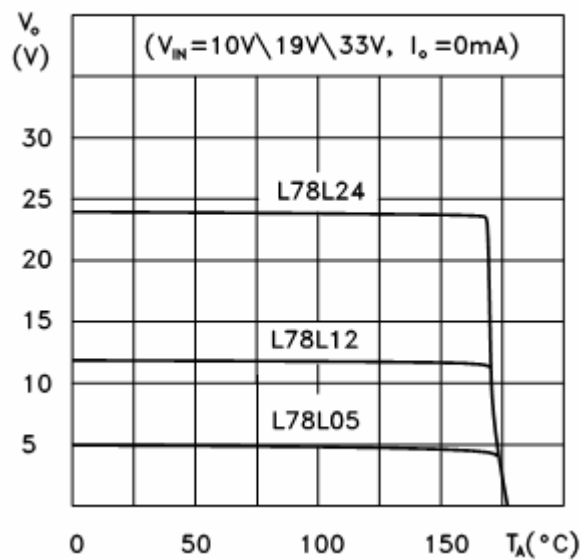
L78L05/12/24 Output Characteristics



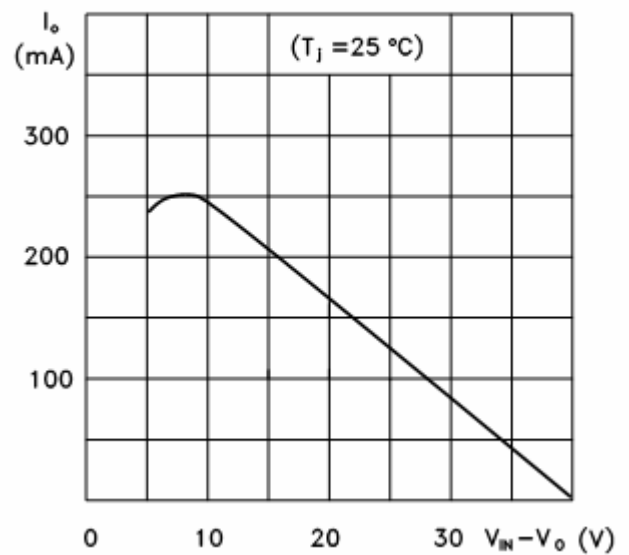
L78L05/12/24 Load Characteristics



L78L05/12/24 Thermal Shutdown



L78L00 Series Short Circuit Output Current



L78L05 Quiescent Current vs Input Voltage

