

SOT-23 Plastic-Encapsulate Transistors

CS78L08 TRANSISTOR (NPN)

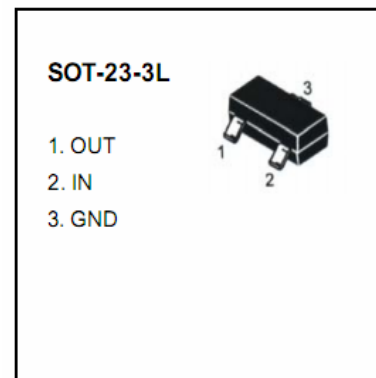
FEATURES:

Maximum Output current IO:0.1A

Output voltage VO:8V

PD:0.35W(Ta=25℃)

MARKING:L08



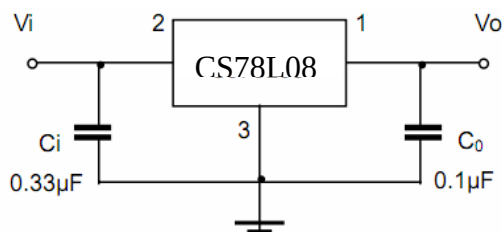
ABSOLUTE MAXIMUM RATINGS(Operating temperature unless otherwise specified)

Symbol (符号)	Parameter (参数名称)	Value (额定值)	Units (单位)
V_i	Input Voltage	30	V
T_{OPR}	Operating junction Tempearture Range	0~+125	℃
T_{stG}	Storage Temperature Range	-55~+150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		MIN	TYP	MAX	UNIT
Output voltage	V_o		25℃	7.7	8.0	8.3	V
		10.5V≤ V_i ≤23V, I_o =1mA~40mA	0-125℃	7.6	8.0	8.4	V
		I_o =1mA~70mA		7.6	8.0	8.4	V
Load Regulation	ΔV_o	I_o =1mA~100mA	25℃		18	80	mV
		I_o =1mA~40mA	25℃		10	40	mV
Line regulation	ΔV_o	10.5V≤ V_i ≤23V			42	175	mV
		11V≤ V_i ≤23V	25℃		36	125	mV
Quiescent Current	I_q		25℃		4	6	mA
Quiescent Current Change	ΔI_q	11V≤ V_i ≤23V	0-125℃			1.5	mA
	ΔI_q	1mA≤ V_i ≤40mA	0-125℃			0.1	mA
Output Noise Voltage	V_N	10Hz≤ f ≤100KHz	25℃		54		uV
Ripple Rejection	RR	8V≤ V_i ≤20V, f =120Hz	0-125℃	37	46		dB
Dropout Voltage	V_d		25℃		1.7		V

TYPICAL APPLICATION

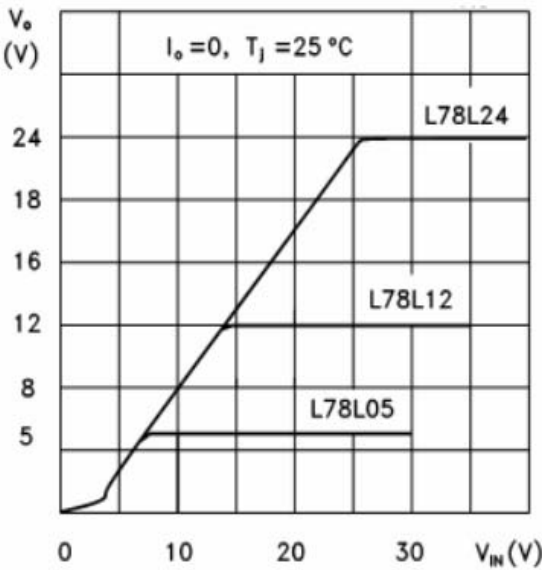


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

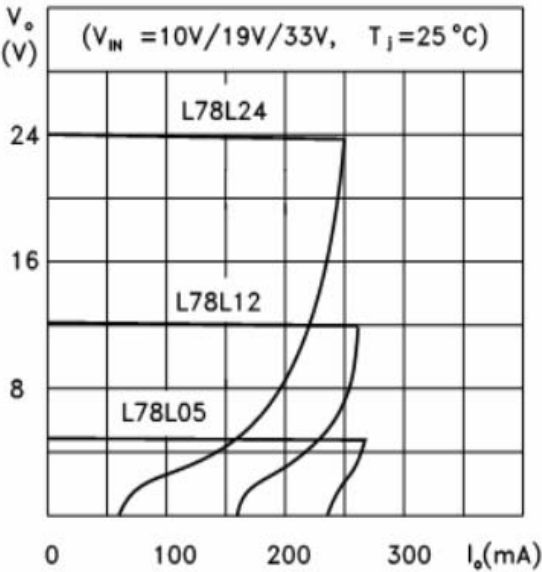
Typical Characteristics

CS78LXX

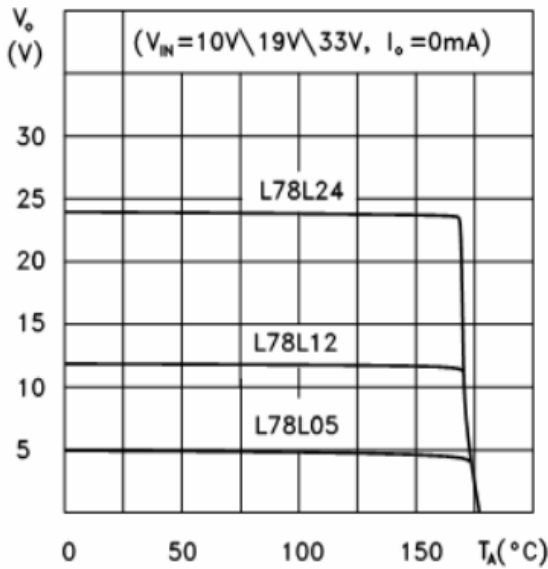
L78L05/12/24 Output Characteristics



L78L05/12/24 Load Characteristics



L78L05/12/24 Thermal Shutdown



L78L00 Series Short Circuit Output Current

