

SOT-23 Plastic-Encapsulate Transistors

CS78L05 TRANSISTOR (NPN)

FEATURES:

Maximum Output current IO:0.1A

Output voltage VO:5V

PD:0.35W(Ta=25℃)

MARKING:L05

SOT-23

1. OUT

2. IN

3. GND



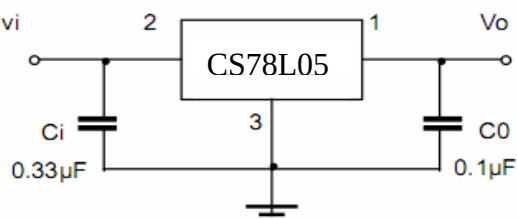
ABSOLUTE MAXIMUM RATINGS(Operating temperature unless otherwise specified)

Symbol (符号)	Parameter (参数名称)	Value (额定值)	Units (单位)
V_i	Input Voltage	35	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℃	4.8	5.0	5.2	V
		$7V \leq V_i \leq 20V, I_o = 1mA \sim 40mA$	0-125℃	4.75	5.0	5.25	V
		$I_o = 1mA \sim 70mA$		4.75	15	5.25	V
Load Regulation	ΔV_o	$I_o = 1mA \sim 100mA$	25℃		8	60	mV
		$I_o = 1mA \sim 40mA$	25℃		32	30	mV
Line regulation	ΔV_o	$7V \leq V_i \leq 20V$			26	150	mV
		$8V \leq V_i \leq 20V$	25℃		3.8	100	mV
Quiescent Current	I_q		25℃			6	mA
Quiescent Current Change	ΔI_q	$8V \leq V_i \leq 20V$	0-125℃			1.5	mA
	ΔI_q	$1mA \leq V_i \leq 40mA$	0-125℃			0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	25℃		42		uV
Ripple Rejection	RR	$8V \leq V_i \leq 20V, f = 120Hz$	0-125℃	41	49		dB
Dropout Voltage	V_d		25℃		1.7		V

TYPICAL APPLICATION

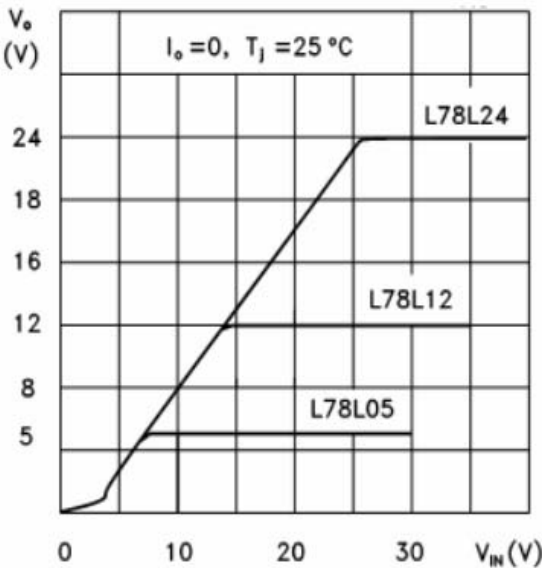


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.

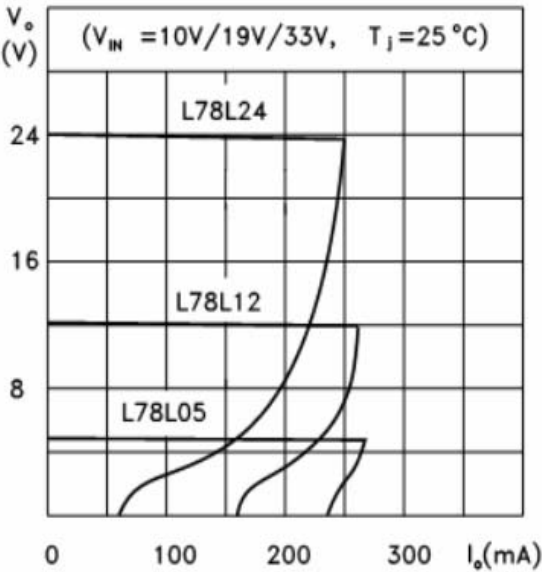
Typical Characteristics

CS78LXX

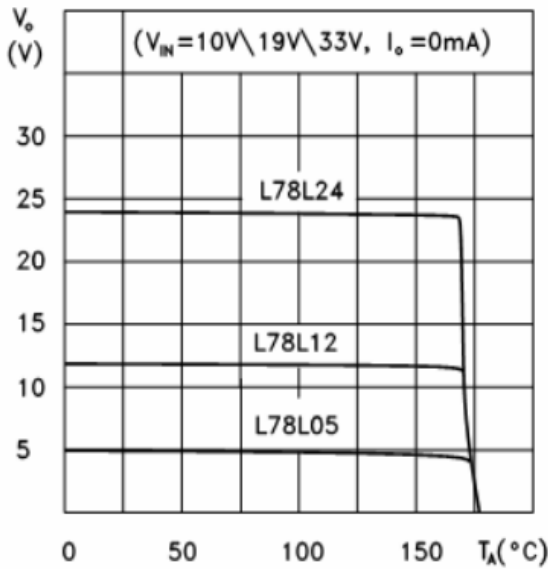
L78L05/12/24 Output Characteristics



L78L05/12/24 Load Characteristics



L78L05/12/24 Thermal Shutdown



L78L00 Series Short Circuit Output Current

