

SHENZHEN HENGJIAXING

78L06 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

I_{OM} : 0.1 A

Output voltage

V_O : 6 V

Continuous total dissipation

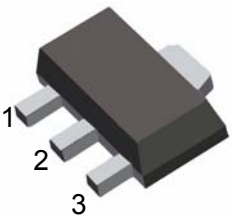
P_D : 0.5W

SOT-89

1.OUT

2.GND

3.IN



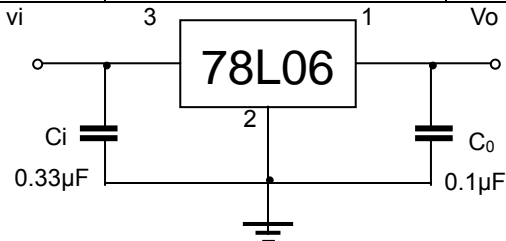
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_i	30	V
Operating Junction Temperature Range	T_{OPR}	0-+125	°C
Storage Temperature Range	T_{STG}	-55-+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=11V, I_o=40mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$25^{\circ}C$	5.75	6.0	6.25	V
		$8V \leq V_i \leq 20V, I_o=1mA-40mA$	5.7	6.0	6.3	V
		$I_o=1mA-70mA$	5.7	6.0	6.3	V
Load Regulation	ΔV_o	$I_o=1mA-100mA$		16	80	mV
		$I_o=1mA-40mA$		9	40	mV
Line regulation	ΔV_o	$8V \leq V_i \leq 20V$		35	175	mV
		$9V \leq V_i \leq 20V$		29	125	mV
Quiescent Current	I_q	$25^{\circ}C$		3.9	6.0	mA
Quiescent Current Change	ΔI_q	$9V \leq V_i \leq 20V$			1.5	mA
	ΔI_q	$1mA \leq I_o \leq 40mA$			0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		46		uV
Ripple Rejection	RR	$9V \leq V_i \leq 19V, f=120Hz$	40	48		dB
Dropout Voltage	V_d	$25^{\circ}C$		1.7		V

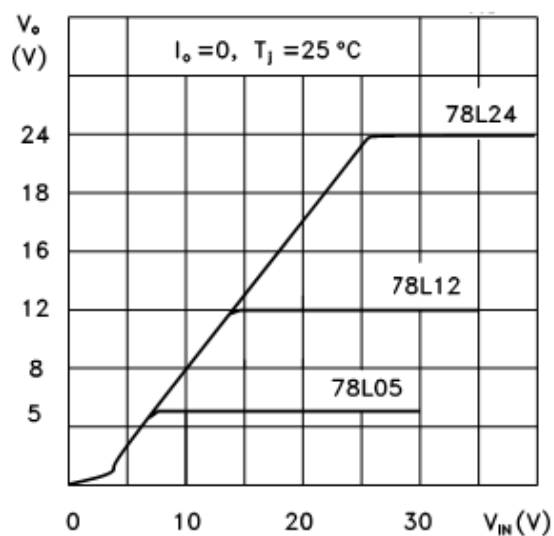
TYPICAL APPLICATION



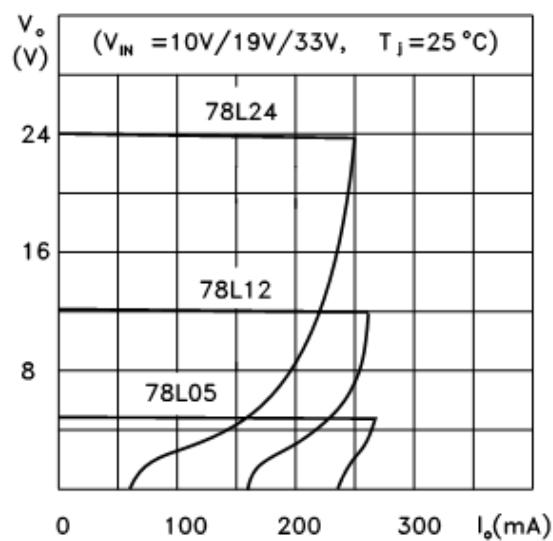
Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Typical Characteristics

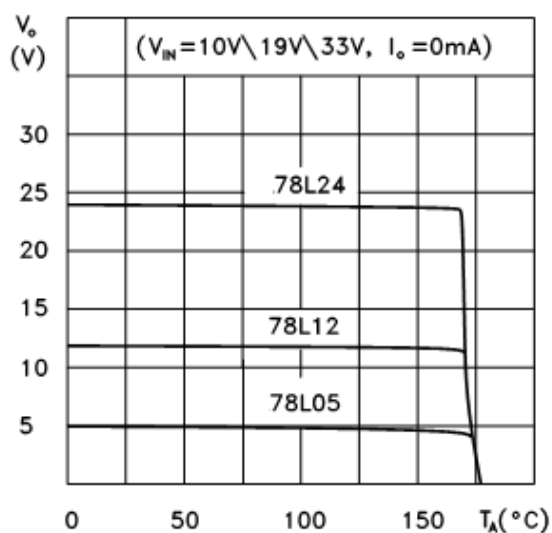
78L05/12/24 Output Characteristics



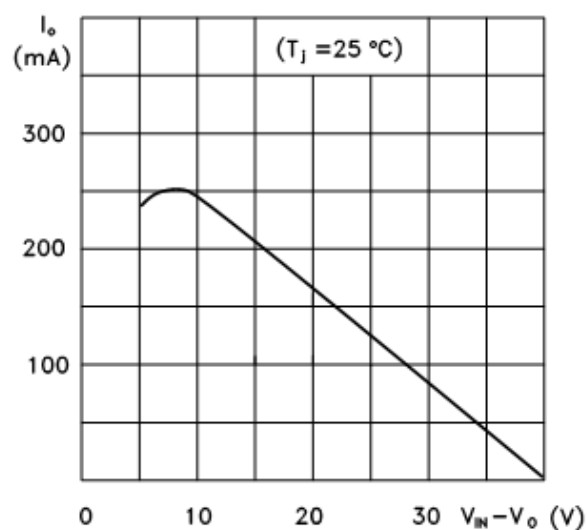
78L05/12/24 Load Characteristics



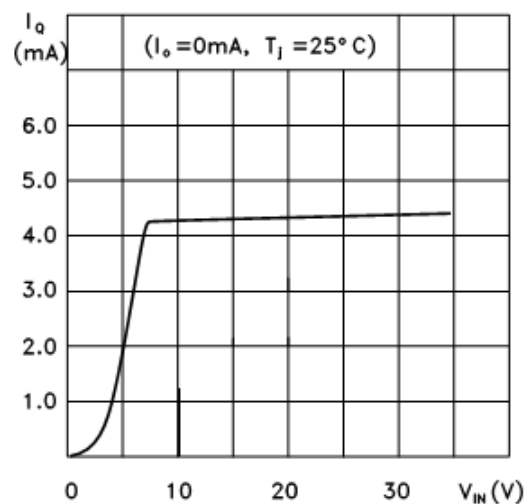
78L05/12/24 Thermal Shutdown



78L00 Series Short Circuit Output Current



78L05 Quiescent Current vs Input Voltage



PD-TA

