CHINA BASE INTERNATIONAL

SOT-23

78L05

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FEATURES

Maximum Output current I_O: 0.1 A

Output voltage V_O: 5 V

Continuous total dissipation P_D:0.35 W (Ta = 25)

1.OUT
2.IN
3.GND

SOT-23

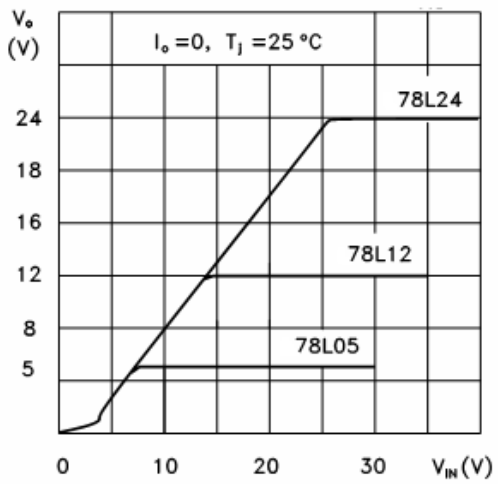
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies)

Parameter	Symbol	Value	Unit
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0-125	
Storage Temperature Range	T_{STG}	-65-150	

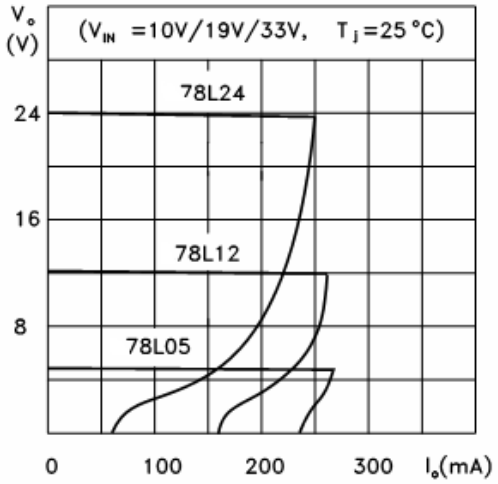
ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE (V_i=10V,Io=40mA,Ci=0.33μF,Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output voltage	Vo		25	4.8	5.0	5.2	V
		7V≤Vi≤20V, Io=1mA~40mA	0-125	4.75	5.0	5.25	V
		Io=1mA~70mA		4.75	5.0	5.25	V
Load Regulation	ΔVo	Io=1mA~100mA	25		15	60	mV
		Io=1mA~40mA	25		8	30	mV
Line regulation	ΔVo	7V≤V_I≤20V			32	150	mV
		8V≤Vi≤20V	25		26	100	mV
Quiescent Current	Iq		25		3.8	6	mA
Quiescent Current Change	ΔIq	8V≤Vi≤20V	0-125			1.5	mA
	ΔIq	1mA≤V_I≤40mA	0-125			0.1	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25		42		uV
Ripple Rejection	RR	8V≤Vi≤20V,f=120Hz	0-125	41	49		dB
Dropout Voltage	Vd		25		1.7		V

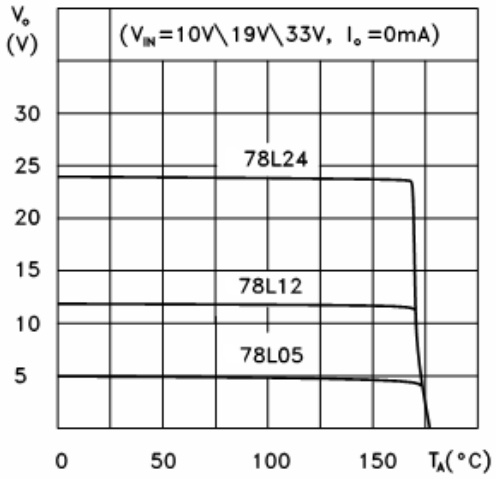
Output Characteristics



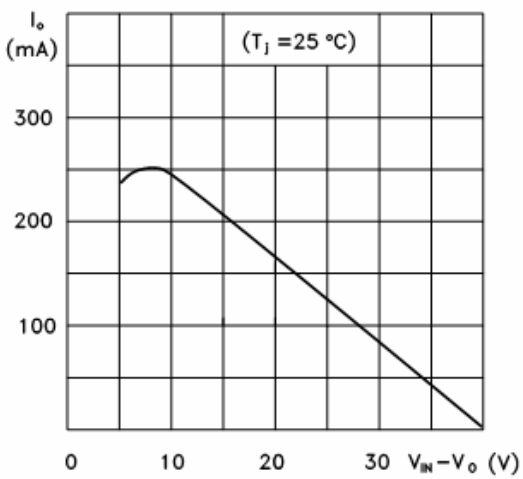
Load Characteristics



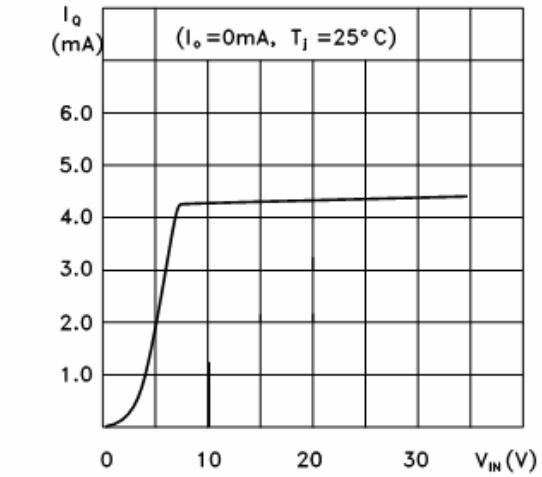
Thermal Shutdown



Short Circuit Output Current

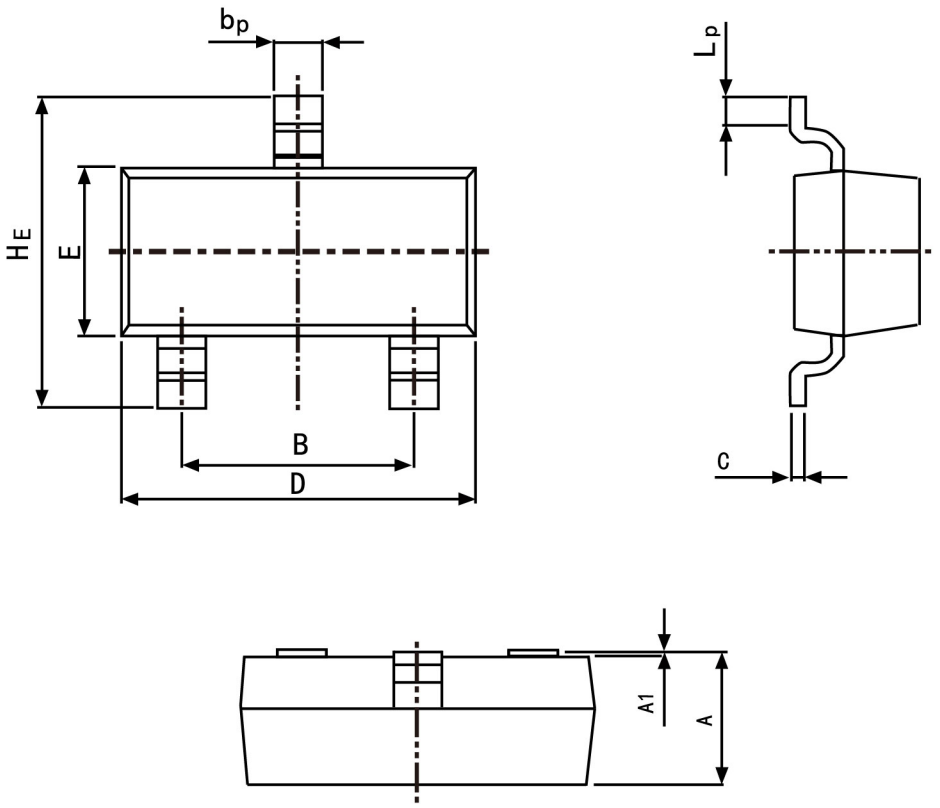


Quiescent Current vs Input Voltage



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.40
B	1.78	2.04
bp	0.35	0.50
C	0.08	0.19
D	2.70	3.10
E	1.20	1.65
HE	2.20	3.00
A1	0.100	0.013
Lp	0.20	0.50