

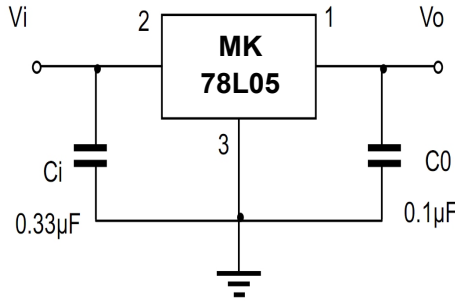


MK78L05 Three-terminal positive voltage regulator

FEATURES:

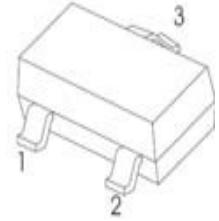
- ※ Maximum output current
IOM: 0.1A
- ※ Output voltage
VO: 5V
- ※ Continuous total dissipation
PD: 0.25W

TYPICAL APPLICATION:



SOT-23

- 1.OUT
- 2.IN
- 3.GND



MARKING: L05

Solid dot = Green molding compound device, if none, the normal device.

Absolute Maximum ratings (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	Vi	30	V
Thermal Resistance From Junction to air	RθJA	160	°C/W
Operating Junction Temperature Range	TOPR	-40~+125	°C
Storage Temperature Range	TSTG	-65~+150	°C

Electrical Characteristics At Specified Virtual Junction Temperature (Vi=10V, Io=40mA, Ci=0.33µF, Co=0.1µF. Unless Otherwise Specified)

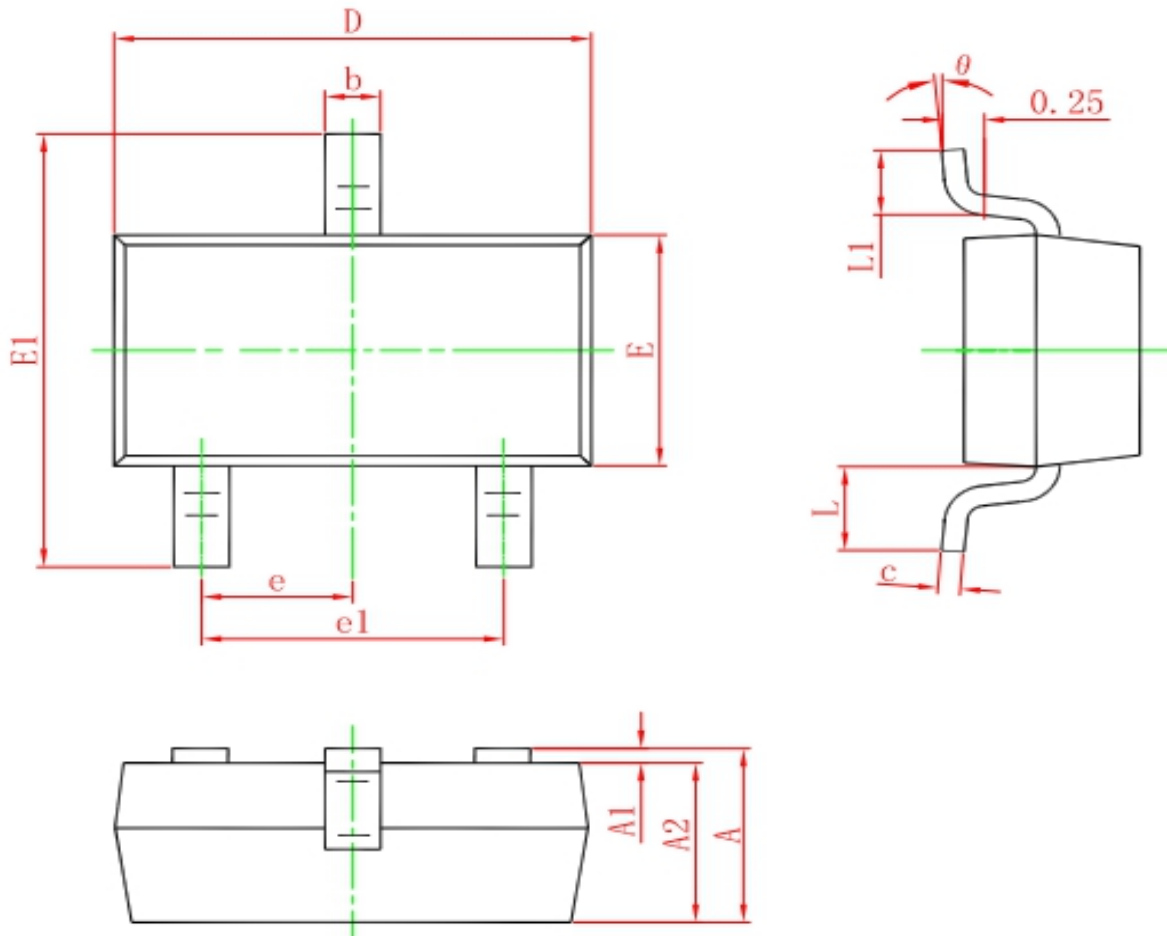
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit	
		25°C	5%	4.75	5	5.25	V
			3%	4.85	5	5.15	V
			2%	4.9	5	5.1	V
Output voltage	VO	7V≤Vi≤20V, Io=1mA-40mA	-25~+125	4.8	5	5.25	V
		7V≤Vi≤20V, Io=1mA-70mA	-25~+125	4.75	5	5.25	V
Load Regulation	ΔVO	Io=1mA-100mA, Vi=10V	25°C		15	60	mV
		Io=1mA-40mA, Vi=10V	25°C		5	30	mV
Line Regulation	ΔVO	7V≤Vi≤20V, Io=40mA	25°C		32	150	mV
		8V≤Vi≤20V, Io=40mA	25°C		26	100	mV
Quiescent Current	Iq		25°C		3.8	6	mA
Quiescent Current Change	ΔIq	8V≤Vi≤20V, Io=40mA	-25~+125			1.5	mA
	ΔIq	1mA≤Io≤40mA	-25~+125			0.1	mA
Output Noise Voltage	VN	10Hz≤f≤100KHz	25°C		42		µV/Vo
Ripple Rejection	Rr	8V≤Vi≤20V, f=120Hz, Io=40mA	-25~+125	41	49		dB
Dropout Voltage	Vd	Io=40mA	25°C		1.7		V

Note :

Bypass Capacitors are Recommended For Optimum Stability and Transient Response and Should be located as Close as Possible to the Regulators



SOT-23 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°