

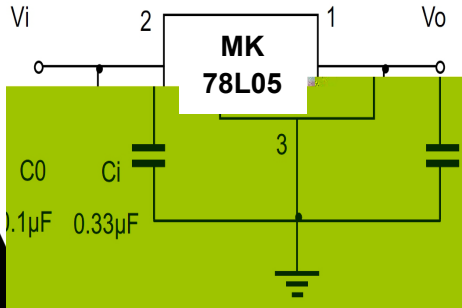


MK78L05 Three-terminal Positive Voltage Regulator

FEATURES:

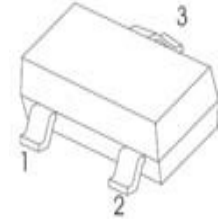
- ※ Maximum output current
I_{OM}: 0.1A
- ※ Output voltage
V_O: 5V
- ※ Continuous total dissipation
PD: 0.25W

TYPICAL APPLICATION:



SOT-23

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



MARKING: L05

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

Absolute Maximum Ratings (Operating Conditions are as specified)

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

Electrical Characteristics (AS specified, V_I = 10V, I_O = 40mA, C_I = 0.33µF, C_O = 0.1µF. Unless otherwise specified)

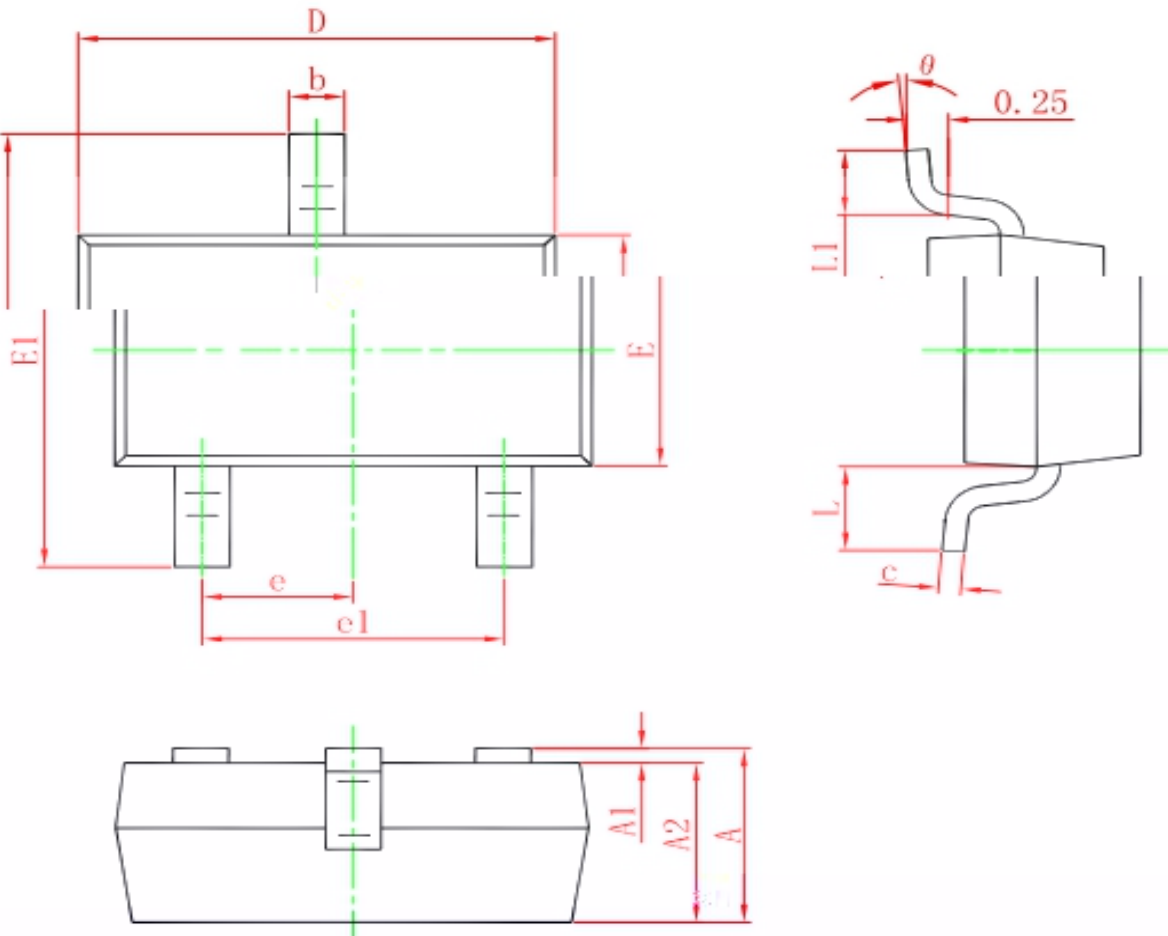
Parameter	Symbol	Conditions	25°C	4.75V	5V	5.25V	Unit
Output voltage	V _O	7V ≤ V _I ≤ 20V, I _O = 1mA-40mA	-25~+125	4.8	5	5.25	V
		7V ≤ V _I ≤ 20V, I _O = 1mA-70mA	-25~+125	4.75	5	5.25	V
		I _O = 1mA-100mA, V _I = 10V	25°C		15	60	mV
Load Regulation	V _O	I _O = 1mA-40mA, V _I = 10V	25°C		5	30	mV
		7V ≤ V _I ≤ 20V, I _O = 40mA	25°C		32	150	mV
Line Regulation	V _O	8V ≤ V _I ≤ 20V, I _O = 40mA	25°C		26	100	mV
		Quiescent Current	I	25°C		3.8	6
Quiescent Current Change	I	8V ≤ V _I ≤ 20V, I _O = 40mA	-25~+125			1.5	mA
		1mA ≤ I _O ≤ 40mA	-25~+125			0.1	mA
Output Noise Voltage	V _N	10Hz ≤ f ≤ 100KHz	25°C		42		µV/V _O
Ripple Rejection	R	8V ≤ V _I ≤ 20V, f = 120Hz, I _O = 40mA	-25~+125	41	49		dB
Dropout Voltage	V _d	I _O = 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	Dimension	Unit	Value	Value
D	Width	mm	2.95	3.00
b	Lead Width	mm	0.95	1.00
E1	Height	mm	0.95	1.00
E2	Body Height	mm	0.50	0.55
e	Lead Offset	mm	0.10	0.15
e1	Lead Spacing	mm	0.50	0.55
A1	Height	mm	0.95	1.00
A2	Body Height	mm	0.50	0.55
A	Lead Height	mm	0.40	0.45
L1	Lead Length	mm	0.85	0.90
L	Lead Length	mm	0.85	0.90
c	Lead Thickness	mm	0.10	0.15
theta	Lead Angle	deg	15	20