

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

78L05S-MS

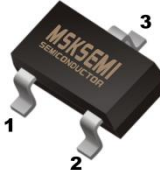

Product specification

78L05S-MS Three-terminal positive voltage regulator

FEATURE

- Maximum Output Current IO: 0.1 A
- Output Voltage Vo: 5 V
- Continuous Total Dissipation
- Pd: 0.25 W (Ta= 25 °C)

Reference News

PACKAGE OUTLINE	MARKING
 <p>1. OUT 2. IN 3. GND</p>	
SOT-23	

ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherwise specified)

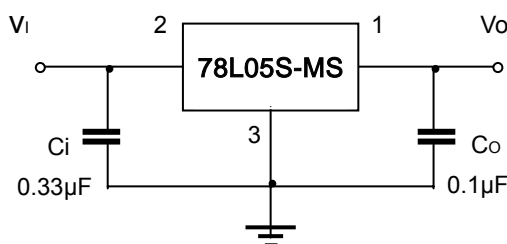
Parameter	Symbol	Value	Unit
Input Voltage	VI	30	V
Operating Junction Temperature Range	TOPR	-40~+125	°C
Storage Temperature Range	TSTG	-55~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

(Vi=10V, Io=40mA, Ci=0.33uF, Co=0.1uF, unless otherwise specified)

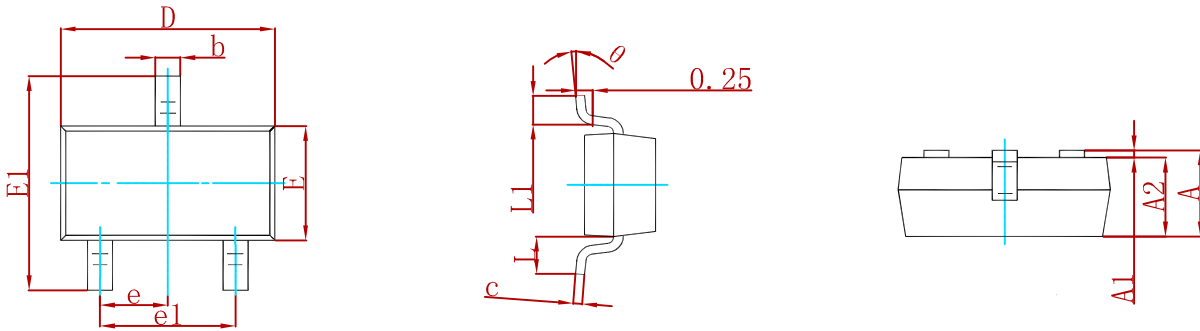
Parameter	Symbol	Test conditions	Min	TYP	Max	Unit	
Output voltage	Vo	25τ	4.8	5.0	5.2	V	
		7V≤Vi≤20V, Io=1mA~40mA	0-125τ	4.75	5.0	5.25	V
		Io=1mA~70mA		4.75	5.0	5.25	V
Load regulation	ΔVo	Io=1mA~100mA	25τ	15	60	mV	
		Io=1mA~40mA	25τ	8	30	mV	
Line regulation	ΔVo	7V≤Vi≤20V		32	150	mV	
		8V≤Vi≤20V	25τ	26	100	mV	
Quiescent current	Iq		25τ	3.8	6	mA	
Quiescent current change	ΔIq	8V≤Vi≤20V	0-125τ		1.5	mA	
	ΔIq	1mA≤Vi≤40mA	0-125τ		0.1	mA	
Output noise voltage	VN	10Hz ≤f≤100kHz	25τ	42		μV	
Ripple rejection	RR	8V≤Vi≤20V, f=120Hz	0-125τ	41	49	dB	
Dropout voltage	Vd		25τ	1.7		V	

TYPICAL APPLICATION



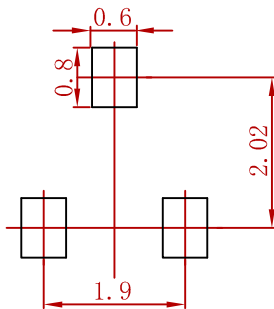
Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulator .

PACKAGE MECHANICAL DATA



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°

Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05 mm.
 3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
78L05S-MS	SOT-23	3000

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