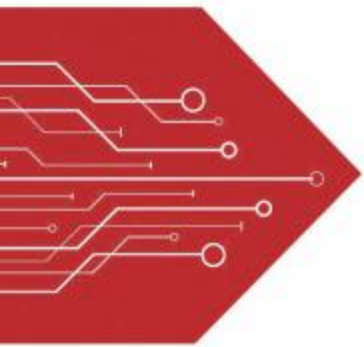


# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

SOT-23-3L

SOT-89



1. GND 2. OUT 3. IN

**FEATURES**

Maximum output current

$I_{OM}$ : 0.1A

Output voltage

$V_o$ : -5V

Continuous total dissipation

$P_D$  : SOT-23-3L 0.35 W ( $T_a = 25^\circ\text{C}$  )

SOT-89 0.5 W ( $T_a = 25^\circ\text{C}$  )

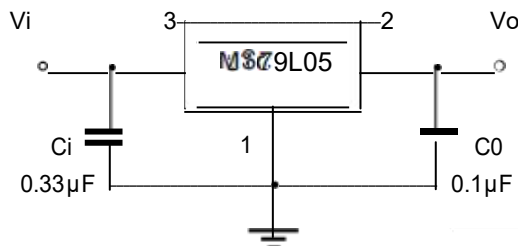
**ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)**

Parameter	Symbol	Value	Units
Input Voltage	$V_i$	-30	V
Operating Junction Temperature Range	$T_{OPR}$	0~+125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55~+150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE( $V_i = -10\text{V}, I_o = 40\text{mA}, C_i = 0.33\mu\text{F}, C_o = 0.1\mu\text{F}$ , unless otherwise specified )**

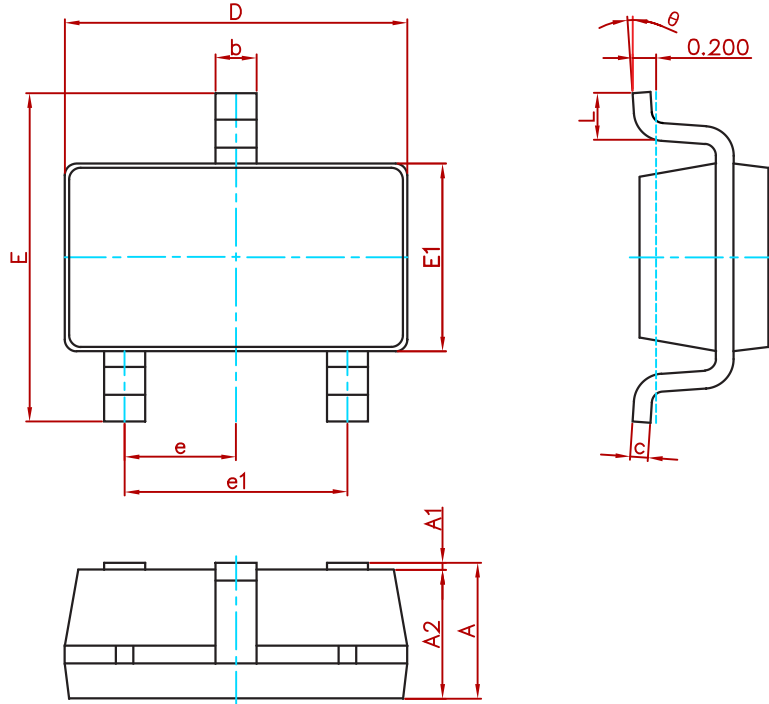
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT	
Output voltage	$V_o$	$25^\circ\text{C}$	-4.8	-5.0	-5.2	V	
		0-125 $^\circ\text{C}$	$-7\text{V} \leq V_i \leq -20\text{V}, I_o = 1\text{mA} \sim 40\text{mA}$	-4.75	-5.0	-5.25	V
			$I_o = 1\text{mA} \sim 70\text{mA}$	-4.75	-5.0	-5.25	V
Load Regulation	$\Delta V_o$	$I_o = 1\text{mA} \sim 100\text{mA}$ $25^\circ\text{C}$		20	60	mV	
		$I_o = 1\text{mA} \sim 40\text{mA}$ $25^\circ\text{C}$		10	30	mV	
Line regulation	$\Delta V_o$	$-7\text{V} \leq V_i \leq -20\text{V}$ $25^\circ\text{C}$		15	150	mV	
		$-8\text{V} \leq V_i \leq -20\text{V}$ $25^\circ\text{C}$		12	100	mV	
Quiescent Current	$I_q$	$25^\circ\text{C}$			6	mA	
Quiescent Current Change	$\Delta I_q$	$-8\text{V} \leq V_i \leq -20\text{V}$ 0-125 $^\circ\text{C}$			1.5	mA	
		$1\text{mA} \leq I_o \leq 40\text{mA}$ 0-125 $^\circ\text{C}$			0.1	mA	
Output Noise Voltage	$V_N$	10Hz $\leq f \leq$ 100KHz $25^\circ\text{C}$		40		$\mu\text{V}$	
Ripple Rejection	RR	$-8\text{V} \leq V_i \leq -18\text{V}, f = 120\text{Hz}$ 0-125 $^\circ\text{C}$	41	49		dB	
Dropout Voltage	$V_d$	$25^\circ\text{C}$		1.7		V	

**TYPICAL APPLICATION**



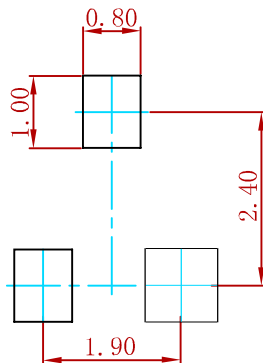
Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

**PACKAGE MECHANICAL DATA**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

**Suggested Pad Layout**

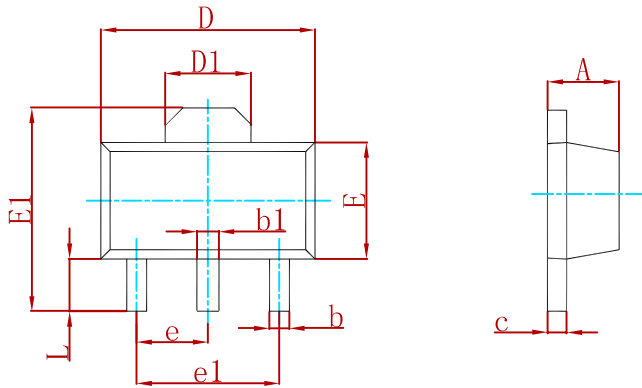


Note:  
 1. Controlling dimension: in millimeters.  
 2. General tolerance: ± 0.05mm.  
 3. The pad layout is for reference purposes only.

**REEL SPECIFICATION**

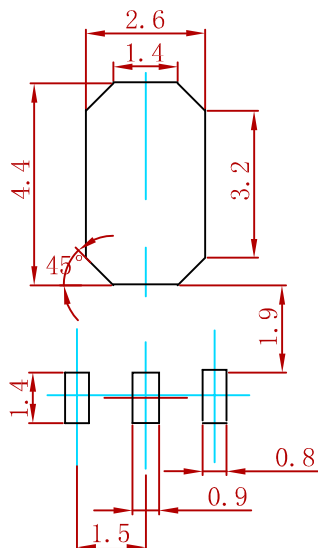
P/N	PKG	QTY
MS79L05S	SOT-23-3L	3000

**PACKAGE MECHANICAL DATA**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

**Suggested Pad Layout**



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

**REEL SPECIFICATION**

P/N	PKG	QTY
MS79L05	SOT-89	1000

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