

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT

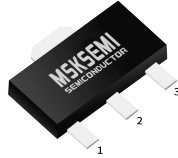
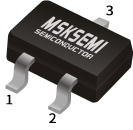


PLED

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

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

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

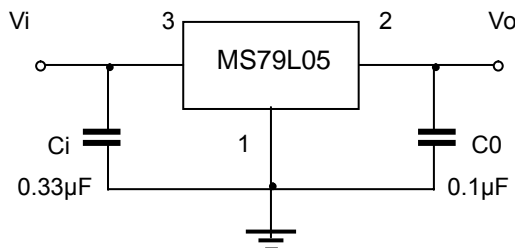
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

| Parameter | Symbol | Value | Units |
|--------------------------------------|-----------|----------|-------|
| Input Voltage | V_i | -30 | V |
| Operating Junction Temperature Range | T_{OPR} | 0~+125 | °C |
| Storage Temperature Range | T_{STG} | -55~+150 | °C |

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

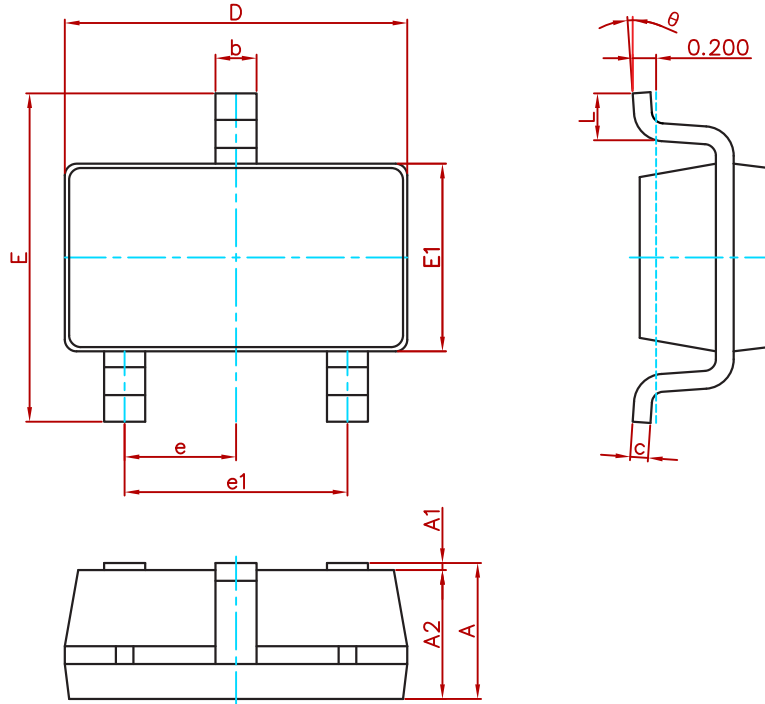
| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT | |
|--------------------------|--------------|-------------------------------------|---|-------|------|-------|---|
| Output voltage | V_o | 25°C | -4.8 | -5.0 | -5.2 | V | |
| | | 0-125°C | $-7V \leq V_i \leq -20V, I_o = 1mA \sim 40mA$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

TYPICAL APPLICATION



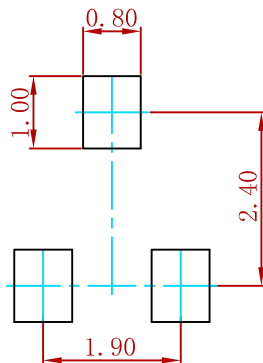
Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

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

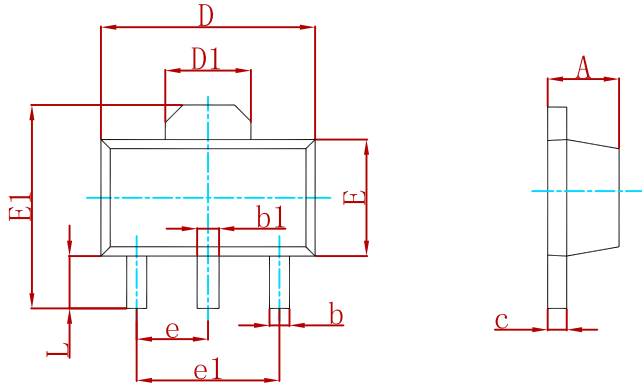


Note:
 1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05mm.
 3. The pad layout is for reference purposes only.

REEL SPECIFICATION

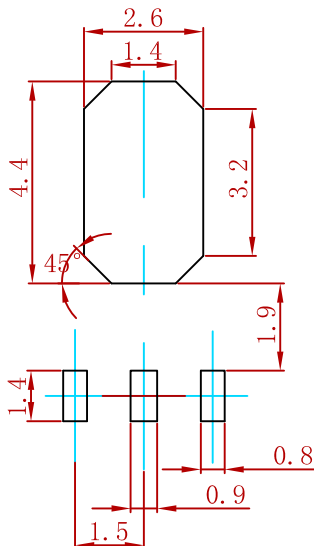
| P/N | PKG | QTY |
|----------|-----------|------|
| MS79L05S | SOT-23-3L | 3000 |

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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