

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

L7905CV(MS)

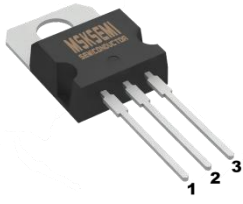

Product specification

Three-terminal positive voltage regulator

FEATURES

- Maximum Output current I_{OM} : 1.5A
- Output voltage V_o: -5V
- Continuous total dissipation
P_D: 2 W (T_a = 25 °C)
15 W(T_c = 25 °C)

Reference News

| PACKAGE OUTLINE | Marking |
|--|---|
|  <p>1.GND 2.IN 3.OUT</p> |  |

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

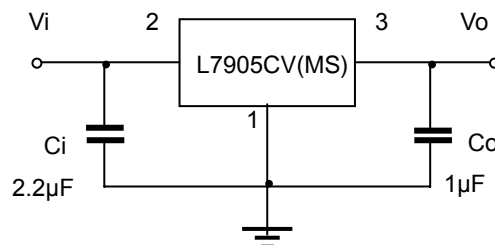
| Parameter | Symbol | Value | Unit |
|---|------------------|----------|------|
| Input Voltage | V _i | -35 | V |
| Thermal Resistance from Junction to Ambient | R _{θJA} | 83.3 | °C/W |
| Thermal Resistance from Junction to Case | R _{θJC} | 8.33 | °C/W |
| Operating Junction Temperature Range | T _{OPR} | 0~+150 | °C |
| Storage Temperature Range | T _{STG} | -55~+150 | °C |

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

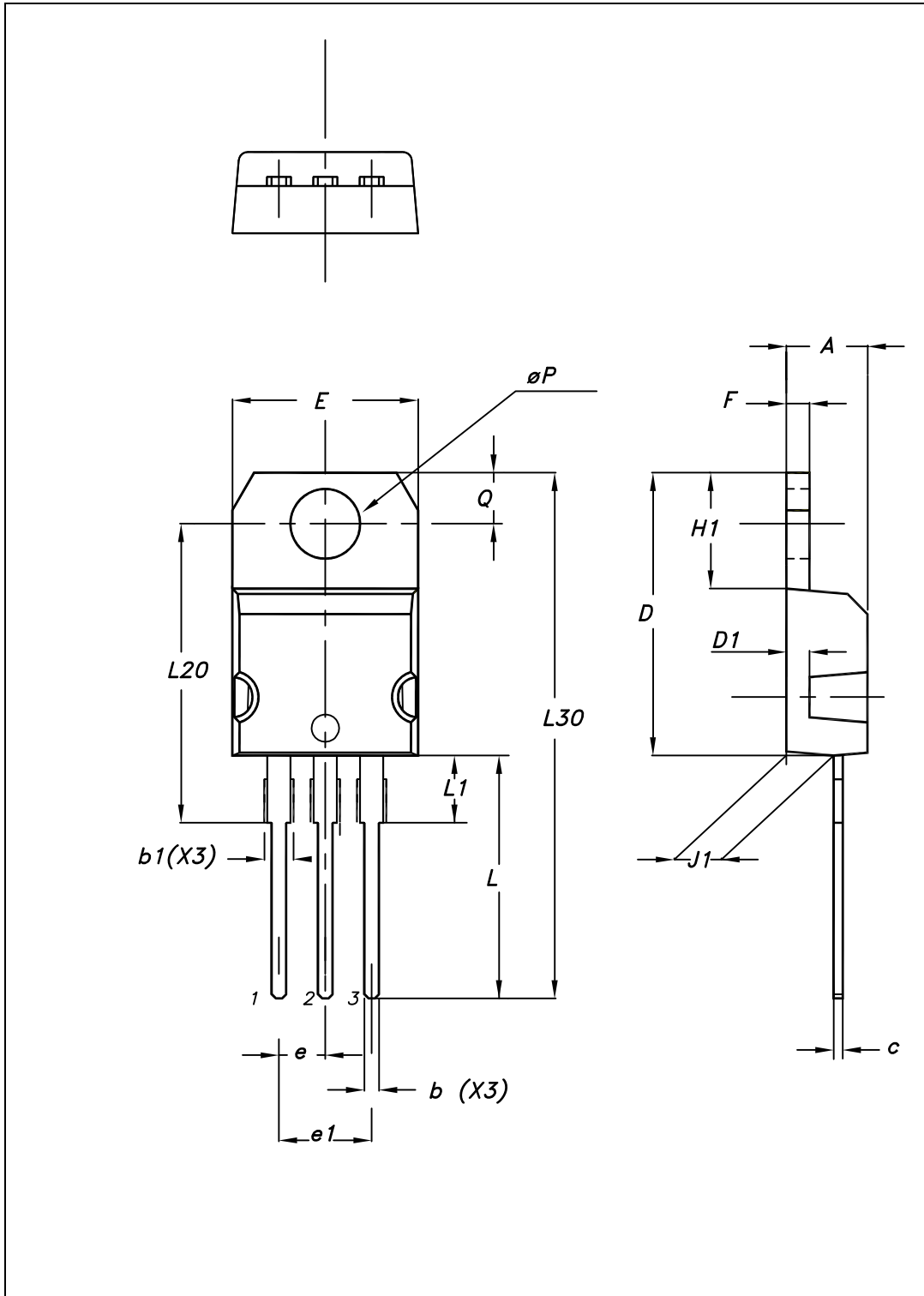
(V_i=-10V, I_o=500mA, C_i=2.2μF, C_o=1μF, unless otherwise specified)

| Parameter | Symbol | Test condition | Min | Typ | Max | Unit |
|--------------------------|---------------------|---|-------|------|-------|-------|
| Output Voltage | V _o | 25°C | -4.8 | -5 | -5.2 | V |
| | | -7V ≤ V _i ≤ -20V, I _o =5mA-1A, P ≤ 15W 0-125°C | -4.75 | -5 | -5.25 | V |
| Load Regulation | ΔV _o | I _o =5mA-1.2A 25°C | | 15 | 100 | mV |
| | | I _o =250mA-750mA 25°C | | 5 | 50 | mV |
| Line Regulation | ΔV _o | -7V ≤ V _i ≤ -25V 25°C | | 12.5 | 50 | mV |
| | | -8V ≤ V _i ≤ -12V 25°C | | 4 | 15 | mV |
| Quiescent Current | I _q | 25°C | | 1.5 | 2 | mA |
| Quiescent Current Change | ΔI _q | -7V ≤ V _i ≤ -25V 0-125°C | | | 0.5 | mA |
| | ΔI _q | 5mA ≤ I _o ≤ 1A 0-125°C | | | 0.5 | mA |
| Output Noise Voltage | V _N | 10Hz ≤ f ≤ 100KHz 25°C | | 125 | | μV |
| Output Voltage Drift | ΔV _o /ΔT | I _o =5mA 0-125°C | | -0.4 | | mV/°C |
| Ripple Rejection | RR | -8V ≤ V _i ≤ -18V, f=120Hz 0-125°C | 54 | 60 | | dB |
| Dropout Voltage | V _d | I _o =1A 25°C | | 1.1 | | V |
| Peak Current | I _{pk} | 25°C | | 2.0 | | A |

TYPICAL APPLICATION



Package mechanical data



Package mechanical data

| Dim. | mm | | |
|------|-------|-------|-------|
| | Min. | Typ. | Max. |
| A | 4.40 | | 4.60 |
| b | 0.61 | | 0.88 |
| b1 | 1.14 | | 1.70 |
| c | 0.48 | | 0.70 |
| D | 15.25 | | 15.75 |
| D1 | | 1.27 | |
| E | 10 | | 10.40 |
| e | 2.40 | | 2.70 |
| e1 | 4.95 | | 5.15 |
| F | 1.23 | | 1.32 |
| H1 | 6.20 | | 6.60 |
| J1 | 2.40 | | 2.72 |
| L | 13 | | 14 |
| L1 | 3.50 | | 3.93 |
| L20 | | 16.40 | |
| L30 | | 28.90 | |
| ØP | 3.75 | | 3.85 |
| Q | 2.65 | | 2.95 |

REEL SPECIFICATION

| P/N | PKG | QTY |
|-------------|--------|---------------------------|
| L7905CV(MS) | TO-220 | 50/One tube 1000/a box of |

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