

LM117/LM317/LM338/LM350 Current Regulator Resistor Selection Chart

** The suggested resistor values are only as a guide,
test your circuit before completion **

| Vref Voltage | Power Dissipated $V \cdot A = P(\text{Watt})$ | Sug. Resistor Ohm | Suggested Resistor Wattage | Current (A) $V/R=A$ | Current (mA) |
|--------------|--|-------------------|----------------------------|------------------------|--------------|
| 1.25 | 7.102 | 0.22 | 10 Watt | 5.682 | 5682 |
| 1.25 | 5.787 | 0.27 | 10 Watt | 4.630 | 4630 |
| 1.25 | 4.735 | 0.33 | 5 Watt | 3.788 | 3788 |
| 1.25 | 3.324 | 0.47 | 5 Watt | 2.660 | 2660 |
| 1.25 | 2.790 | 0.56 | 5 Watt | 2.232 | 2232 |
| 1.25 | 2.298 | 0.68 | 5 Watt | 1.838 | 1838 |
| 1.25 | 1.905 | 0.82 | 5 Watt | 1.524 | 1524 |
| 1.25 | 1.563 | 1.00 | 5 Watt | 1.250 | 1250 |
| 1.25 | 1.302 | 1.20 | 5 Watt | 1.042 | 1042 |
| 1.25 | 1.042 | 1.50 | 5 Watt | 0.833 | 833 |
| 1.25 | 0.579 | 2.70 | 5 Watt | 0.463 | 463 |
| 1.25 | 0.279 | 5.60 | 5 Watt | 0.223 | 223 |
| 1.25 | 0.230 | 6.80 | 5 Watt | 0.184 | 184 |
| 1.25 | 0.191 | 8.20 | 2 Watt | 0.152 | 152 |
| 1.25 | 0.156 | 10.00 | 2 Watt | 0.125 | 125 |
| 1.25 | 0.130 | 12.00 | 2 Watt | 0.104 | 104 |
| 1.25 | 0.104 | 15.00 | 2 Watt | 0.083 | 83 |
| 1.25 | 0.087 | 18.00 | 1 Watt | 0.069 | 69 |
| 1.25 | 0.071 | 22.00 | 1 Watt | 0.057 | 57 |
| 1.25 | 0.058 | 27.00 | 1 Watt | 0.046 | 46 |
| 1.25 | 0.047 | 33.00 | .5 Watt | 0.038 | 38 |
| 1.25 | 0.040 | 39.00 | .5 Watt | 0.032 | 32 |
| 1.25 | 0.033 | 47.00 | .5 Watt | 0.027 | 27 |
| 1.25 | 0.028 | 56.00 | .5 Watt | 0.022 | 22 |
| 1.25 | 0.023 | 68.00 | .25 Watt | 0.018 | 18 |
| 1.25 | 0.019 | 82.00 | .25 Watt | 0.015 | 15 |
| 1.25 | 0.016 | 100.00 | .25 Watt | 0.013 | 13 |
| 1.25 | 0.013 | 120.00 | .25 Watt | 0.010 | 10 |
| 1.25 | 0.010 | 150.00 | .25 Watt | 0.008 | 8 |
| 1.25 | 0.009 | 180.00 | .25 Watt | 0.007 | 7 |
| 1.25 | 0.007 | 240.00 | .25 Watt | 0.005 | 5 |

LM117/LM317/LM338/LM350 Voltage Regulator Resistor Selection Chart

** R3 is optional and only added to chart
for more accurate voltage output **

| Vref Voltage | R1 OHM | R2 OHM | R3 OHM (optional after R2) | R2 + R3 OHM | Voltage Output $V_{out} = 1.25V(1+R2/R1)$ |
|--------------|--------|--------|-------------------------------|-------------|--|
| 1.25 | 240 | 1 | 0 | 1 | 1.26 |
| 1.25 | 240 | 27 | 0 | 27 | 1.39 |
| 1.25 | 240 | 47 | 1 | 48 | 1.50 |
| 1.25 | 240 | 100 | 5 | 105 | 1.80 |
| 1.25 | 240 | 120 | 24 | 144 | 2.00 |
| 1.25 | 240 | 180 | 2 | 182 | 2.20 |
| 1.25 | 240 | 220 | 0 | 220 | 2.40 |
| 1.25 | 240 | 330 | 5.6 | 336 | 3.00 |
| 1.25 | 240 | 390 | 3.9 | 394 | 3.30 |
| 1.25 | 240 | 470 | 0 | 470 | 3.70 |
| 1.25 | 240 | 560 | 6.8 | 567 | 4.20 |
| 1.25 | 240 | 680 | 2.2 | 682 | 4.80 |
| 1.25 | 240 | 680 | 39 | 719 | 4.99 |
| 1.25 | 240 | 820 | 15 | 835 | 5.60 |
| 1.25 | 240 | 1000 | 8.2 | 1008 | 6.50 |
| 1.25 | 240 | 1200 | 0 | 1200 | 7.50 |
| 1.25 | 240 | 1500 | 0 | 1500 | 9.06 |
| 1.25 | 240 | 1500 | 100 | 1600 | 9.58 |
| 1.25 | 240 | 1800 | 0 | 1800 | 10.63 |
| 1.25 | 240 | 2200 | 0 | 2200 | 12.71 |
| 1.25 | 240 | 2200 | 150 | 2350 | 13.49 |
| 1.25 | 240 | 2200 | 390 | 2590 | 14.74 |
| 1.25 | 240 | 2700 | 0 | 2700 | 15.31 |
| 1.25 | 240 | 3300 | 0 | 3300 | 18.44 |
| 1.25 | 240 | 3900 | 0 | 3900 | 21.56 |
| 1.25 | 240 | 3900 | 470 | 4370 | 24.01 |
| 1.25 | 240 | 4700 | 0 | 4700 | 25.73 |
| 1.25 | 240 | 5600 | 0 | 5600 | 30.42 |

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