

# Voltage Regulators

- \* 3.3~12V/100mA~1.5A popular volatge rating
- \* SMD and through hole packages offer

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## Voltage Regulators

| Part Number  | Package | Maximum Output Current | Output Voltage @ T <sub>J</sub> = 25°C |                        | Input Voltage          |                        | Line Regulation @ Input Voltage |                        |                        | Load Regulation @ V <sub>I</sub> |
|--------------|---------|------------------------|--|------------------------|------------------------|------------------------|---------------------------------|------------------------|------------------------|----------------------------------|
|              |         | I <sub>o</sub> (A)     | V <sub>o</sub> (V) Min                 | V <sub>o</sub> (V) Max | V <sub>i</sub> (V) Min | V <sub>i</sub> (V) Max | ΔV <sub>o</sub> (mV) Max        | V <sub>i</sub> (V) Min | V <sub>i</sub> (V) Max | ΔV <sub>o</sub> (mV) Max         |
| MC78L05F     | SOT-89  | 0.1                    | 4.8                                    | 5.2                    | 7                      | 20                     | 150                             | 7                      | 20                     | 60                               |
| MC78L05FA    | SOT-89  | 0.1                    | 4.8                                    | 5.2                    | 7                      | 20                     | 150                             | 7                      | 20                     | 60                               |
| MC78L06F     | SOT-89  | 0.1                    | 5.75                                   | 6.25                   | 8.5                    | 20                     | 175                             | 8.5                    | 20                     | 80                               |
| MC78L08F     | SOT-89  | 0.1                    | 7.7                                    | 8.3                    | 10.5                   | 23                     | 175                             | 10.5                   | 23                     | 80                               |
| MC78L33F     | SOT-89  | 0.1                    | 3.168                                  | 3.432                  | 7                      | 20                     | 150                             | 5.8                    | 20                     | 60                               |
| MC79L05F     | SOT-89  | 0.1                    | -4.8                                   | -5.2                   | -7                     | -20                    | 150                             | -20                    | -7                     | 60                               |
| MC79L06F     | SOT-89  | 0.1                    | -5.76                                  | -6.24                  | -8.5                   | -20                    | 150                             | -8.5                   | -20                    | 60                               |
| MC79L08F     | SOT-89  | 0.1                    | -7.68                                  | -8.32                  | -10.5                  | -30                    | 175                             | -10.5                  | -23                    | 80                               |
| TL431AU      | SOT-23  | 0.1                    | 2.475                                  | 36                     | 2.475                  | 37                     | -                               | -                      | -                      | -                                |
| TL431BU      | SOT-23  | 0.1                    | 2.487                                  | 36                     | 2.487                  | 37                     | -                               | -                      | -                      | -                                |
| TL431K       | SOT-23  | 0.1                    | 2.482                                  | 36                     | 2.482                  | 37                     | -                               | -                      | -                      | -                                |
| TL431V       | SOT-23  | 0.1                    | 2.45                                   | 36                     | 2.45                   | 37                     | -                               | -                      | -                      | -                                |
| TL431X       | SOT-89  | 0.1                    | 2.44                                   | 36                     | 2.44                   | 2.55                   | -                               | -                      | -                      | -                                |
| MC78M05CDT   | DPAK    | 0.5                    | 4.8                                    | 5.2                    | 7                      | 20                     | 100                             | 7                      | 25                     | 100                              |
| MC78M06CDT   | DPAK    | 0.5                    | 5.75                                   | 6.25                   | 8                      | 21                     | 100                             | 8                      | 25                     | 120                              |
| MC78M08CDT   | DPAK    | 0.5                    | 7.7                                    | 8.3                    | 10.5                   | 23                     | 100                             | 11                     | 25                     | 160                              |
| MC78M12CDT   | DPAK    | 0.5                    | 11.5                                   | 12.5                   | 14.5                   | 27                     | 100                             | 14.5                   | 30                     | 240                              |
| MC78M15CDT   | DPAK    | 0.5                    | 14.25                                  | 15.75                  | 17.5                   | 30                     | 100                             | 17.5                   | 30                     | 300                              |
| MCA1117C-1.8 | SOT-89  | 0.8                    | 1.764                                  | 1.836                  | 3.3                    | 12                     | 7                               | 3.3                    | 12                     | 12                               |
| MCA1117C-2.5 | SOT-89  | 0.8                    | 2.45                                   | 2.55                   | 4                      | 12                     | 7                               | 4                      | 12                     | 16                               |
| MCA1117C-3.3 | SOT-89  | 0.8                    | 3.234                                  | 3.366                  | 4.8                    | 12                     | 7                               | 4.8                    | 12                     | 24                               |
| MCA1117C-5.0 | SOT-89  | 0.8                    | 4.9                                    | 5.1                    | 6.5                    | 12                     | 10                              | 6.5                    | 12                     | 36                               |
| MCA1117C-ADJ | SOT-89  | 0.8                    | 1.225                                  | 1.275                  | 2.75                   | 12                     | 10                              | 2.75                   | 12                     | 8                                |
| MC7806CT     | TO-220  | 1                      | 5.88                                   | 6.12                   | 8                      | 21                     | 120                             | 8                      | 25                     | 120                              |
| MC7808CT     | TO-220  | 1                      | 7.84                                   | 8.16                   | 10.5                   | 23                     | 160                             | 10.5                   | 25                     | 160                              |
| MC78D05CDT   | DPAK    | 1                      | 4.8                                    | 5.2                    | 8                      | 20                     | 100                             | 7.5                    | 20                     | 100                              |
| MC7905CT     | TO-220  | 1                      | -4.8                                   | -5.2                   | -7                     | -20                    | 50                              | -7                     | -25                    | 100                              |
| MC7906CT     | TO-220  | 1                      | -5.75                                  | -6.25                  | -8                     | -21                    | 160                             | -8                     | -25                    | 160                              |
| MC7908CT     | TO-220  | 1                      | -7.7                                   | -8.3                   | -10.5                  | -23                    | 160                             | -10.5                  | -25                    | 160                              |
| MCT1117B-1.8 | SOT-223 | 1                      | 1.764                                  | 1.836                  | 3.3                    | 12                     | 7                               | 1.5                    | 10.2                   | 7.2                              |
| MCT1117B-2.5 | SOT-223 | 1                      | 2.45                                   | 2.55                   | 4                      | 12                     | 7                               | 1.5                    | 9.5                    | 10                               |
| MCT1117B-3.3 | SOT-223 | 1                      | 3.234                                  | 3.366                  | 4.8                    | 12                     | 7                               | 1.5                    | 8.7                    | 13.2                             |
| MCT1117B-5.0 | SOT-223 | 1                      | 4.9                                    | 5.1                    | 6.5                    | 12                     | 10                              | 1.5                    | 7                      | 20                               |
| MCT1117B-ADJ | SOT-223 | 1                      | 1.225                                  | 1.275                  | 2.75                   | 13.25                  | 10                              | 1.5                    | 12                     | 20                               |
| LM317DT      | D2-PAK  | 1.5                    | 1.2                                    | 37                     | 3                      | 40                     | 160                             | 3                      | 40                     | 70                               |
| LM317MDT     | DPAK    | 1.5                    | 1.2                                    | 37                     | 3                      | 40                     | 160                             | 3                      | 40                     | 70                               |
| LM317T       | TO-220  | 1.5                    | 1.2                                    | 37                     | 3                      | 40                     | -                               | 3                      | 40                     | 70                               |
| MC7805CT     | TO-220  | 1.5                    | 4.8                                    | 5.2                    | 7                      | 20                     | 100                             | 7                      | 25                     | 100                              |
| MC7805FCT    | TO-220F | 1.5                    | 4.8                                    | 5.2                    | 7                      | 20                     | 100                             | 7                      | 25                     | 100                              |
| MC7815CT     | TO-220  | 1.5                    | 14.4                                   | 15.6                   | 17.5                   | 30                     | 300                             | 17.5                   | 30                     | 300                              |
| MC78M05CT    | D2-PAK  | 1.5                    | 4.8                                    | 5.2                    | 7                      | 20                     | 100                             | 7                      | 25                     | 100                              |
| MC78M12CT    | D2-PAK  | 1.5                    | 11.5                                   | 12.5                   | 14.5                   | 27                     | 240                             | 14.5                   | 30                     | 240                              |
| MC7915CT     | TO-220  | 1.5                    | -14.4                                  | -15.6                  | -17.5                  | -30                    | 100                             | -17.5                  | -30                    | 200                              |
| MC79D05CDT   | DPAK    | 1.5                    | -4.75                                  | -5.25                  | -7                     | -20                    | 100                             | -7                     | -25                    | 100                              |

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|-------------|---------|------------------------|--|------------------------|------------------------|------------------------|---------------------------------|------------------------|------------------------|----------------------------------|
|             |         | I <sub>o</sub> (A)     | V <sub>o</sub> (V) Min                 | V <sub>o</sub> (V) Max | V <sub>i</sub> (V) Min | V <sub>i</sub> (V) Max | ΔV <sub>o</sub> (mV) Max        | V <sub>i</sub> (V) Min | V <sub>i</sub> (V) Max | ΔV <sub>o</sub> (mV) Max         |
| MC79D15CDT  | DPAK    | 1.5                    | -14.25                                 | -15.75                 | -17.5                  | -30                    | 100                             | -17.5                  | -30                    | 200                              |

