

500mA Low-Dropout Linear Regulators

Features

- Low, 100 μ A No-Load Supply Current
- 500mA Output Current Limit Minimum
- 500mA Available at $V_O=3.3V$, $V_{IN}=4.3V$
- 300mA Current Rating
- Over-Temperature Protection and Short-Circuit Protection
- Max. Supply Current in Shutdown Mode < 1 μ A
- Stable with Low Cost Ceramic Capacitors

Applications

- Notebook Computers
- Cellular Phones
- PDAs
- Digital still Camera and Video Recorders
- Hand-Held Devices
- Bar Code Scanners

General Description

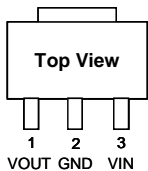
The G9001 is a low supply current, low dropout linear regulator. The supply current at no-load is 100 μ A. In the shutdown mode, the maximum supply current is less than 1 μ A. Output current minimum limit is 500mA, and over-current protection limit is set at 860mA typical. An overtemperature protection circuit is built-in in the G9001 to prevent thermal overload. These power saving features make the G9001 ideal for use in the battery-powered applications such as notebook computers, cellular phones, and PDA's.

These devices feature a shutdown function and are offered in active low with auto discharge. The G9001 is specifically designed to employ ceramic output capacitors. The G9001 comes in a space saving SOT-89, SOT-23, SOT-23-5 and TSOT-23-5 package.

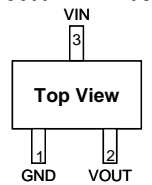
Pin Configuration

Typical Application Circuit

G9001-XXXT21U G9001-XXXT73U

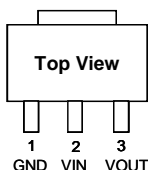


SOT-89



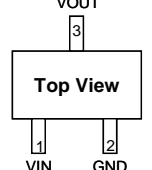
SOT-23

G9001-XXXT24U

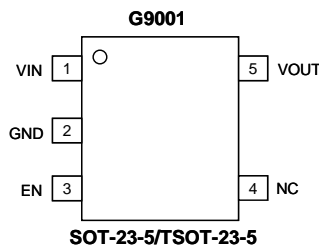


SOT-89

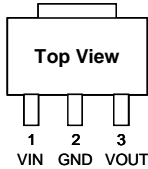
G9001-XXXT75U



SOT-23

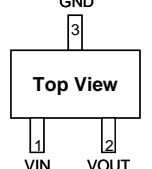


G9001-XXXT25U

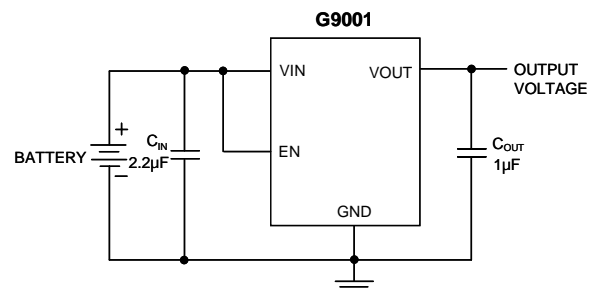


SOT-89

G9001-XXXT76U



SOT-23



Ordering Information

| ORDER NUMBER | MARKING | VOLTAGE | TEMP. RANGE | PACKAGE (Green) |
|---------------|---------|---------|--------------|-----------------|
| G9001-120T11U | 900Ax | 1.20V | -40°C~ +85°C | SOT-23-5 |
| G9001-180T11U | 900Fx | 1.80V | -40°C~ +85°C | SOT-23-5 |
| G9001-250T11U | 900Ix | 2.50V | -40°C~ +85°C | SOT-23-5 |
| G9001-260T11U | 900Jx | 2.60V | -40°C~ +85°C | SOT-23-5 |
| G9001-280T11U | 900Lx | 2.80V | -40°C~ +85°C | SOT-23-5 |
| G9001-300T11U | 900Nx | 3.00V | -40°C~ +85°C | SOT-23-5 |
| G9001-330T11U | 900Px | 3.30V | -40°C~ +85°C | SOT-23-5 |
| G9001-500T11U | 90AQx | 5.00V | -40°C~ +85°C | SOT-23-5 |
| G9001-250TO1U | 900Ix | 2.50V | -40°C~ +85°C | TSOT-23-5 |
| G9001-300TO1U | 900Nx | 3.00V | -40°C~ +85°C | TSOT-23-5 |
| G9001-120T21U | 9001A | 1.20V | -40°C~ +85°C | SOT-89 |
| G9001-180T21U | 9001F | 1.80V | -40°C~ +85°C | SOT-89 |
| G9001-250T21U | 9001I | 2.50V | -40°C~ +85°C | SOT-89 |
| G9001-330T21U | 9001P | 3.30V | -40°C~ +85°C | SOT-89 |
| G9001-500T24U | 9001BQ | 5.00V | -40°C~ +85°C | SOT-89 |
| G9001-180T25U | 9001AF | 1.80V | -40°C~ +85°C | SOT-89 |
| G9001-250T25U | 9001AI | 2.50V | -40°C~ +85°C | SOT-89 |
| G9001-330T25U | 9001AP | 3.30V | -40°C~ +85°C | SOT-89 |
| G9001-120T73U | 90AAx | 1.20V | -40°C~ +85°C | SOT-23 |
| G9001-300T73U | 90ANx | 3.00V | -40°C~ +85°C | SOT-23 |
| G9001-330T75U | 90EPx | 3.30V | -40°C~ +85°C | SOT-23 |
| G9001-330T76U | 900Px | 3.30V | -40°C~ +85°C | SOT-23 |

For other output voltage, please contact us at sales@gmt.com.tw

Note:T1: SOT-23-5 TO: TSOT-23-5 T2: SOT-89 T7:SOT-23

1, 3, 4, 5 & 6: Bonding Code

U: Tape & Reel