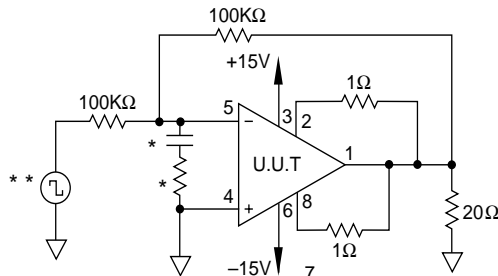


# PA51M

| SG | PARAMETER                    | SYMBOL   | TEMP. | POWER | TEST CONDITIONS                            | MIN | MAX   | UNITS |
|----|------------------------------|----------|-------|-------|--|-----|-------|-------|
| 1  | Quiescent current            | $I_Q$    | 25°C  | ±34V  | $V_{IN} = 0, A_V = 100, R_{CL} = .1\Omega$ |     | 10    | mA    |
| 1  | Input offset voltage         | $V_{OS}$ | 25°C  | ±34V  | $V_{IN} = 0, A_V = 100$                    |     | ±10   | mV    |
| 1  | Input offset voltage         | $V_{OS}$ | 25°C  | ±10V  | $V_{IN} = 0, A_V = 100$                    |     | ±16   | mV    |
| 1  | Input offset voltage         | $V_{OS}$ | 25°C  | ±40V  | $V_{IN} = 0, A_V = 100$                    |     | ±11.2 | mV    |
| 1  | Input bias current, +IN      | $+I_B$   | 25°C  | ±34V  | $V_{IN} = 0$                               |     | ±40   | nA    |
| 1  | Input bias current, -IN      | $-I_B$   | 25°C  | ±34V  | $V_{IN} = 0$                               |     | ±40   | nA    |
| 1  | Input offset current         | $I_{OS}$ | 25°C  | ±34V  | $V_{IN} = 0$                               |     | ±10   | nA    |
| 3  | Quiescent current            | $I_Q$    | -55°C | ±34V  | $V_{IN} = 0, A_V = 100, R_{CL} = .1\Omega$ |     | 10    | mA    |
| 3  | Input offset voltage         | $V_{OS}$ | -55°C | ±34V  | $V_{IN} = 0, A_V = 100$                    |     | ±15.2 | mV    |
| 3  | Input offset voltage         | $V_{OS}$ | -55°C | ±10V  | $V_{IN} = 0, A_V = 100$                    |     | ±21.2 | mV    |
| 3  | Input offset voltage         | $V_{OS}$ | -55°C | ±40V  | $V_{IN} = 0, A_V = 100$                    |     | ±16.4 | mV    |
| 3  | Input bias current, +IN      | $+I_B$   | -55°C | ±34V  | $V_{IN} = 0$                               |     | ±72   | nA    |
| 3  | Input bias current, -IN      | $-I_B$   | -55°C | ±34V  | $V_{IN} = 0$                               |     | ±72   | nA    |
| 3  | Input offset current         | $I_{OS}$ | -55°C | ±34V  | $V_{IN} = 0$                               |     | ±26   | nA    |
| 2  | Quiescent current            | $I_Q$    | 125°C | ±34V  | $V_{IN} = 0, A_V = 100, R_{CL} = .1\Omega$ |     | 13    | mA    |
| 2  | Input offset voltage         | $V_{OS}$ | 125°C | ±34V  | $V_{IN} = 0, A_V = 100$                    |     | ±16.5 | mV    |
| 2  | Input offset voltage         | $V_{OS}$ | 125°C | ±10V  | $V_{IN} = 0, A_V = 100$                    |     | ±22.5 | mV    |
| 2  | Input offset voltage         | $V_{OS}$ | 125°C | ±40V  | $V_{IN} = 0, A_V = 100$                    |     | ±17.7 | mV    |
| 2  | Input bias current, +IN      | $+I_B$   | 125°C | ±34V  | $V_{IN} = 0$                               |     | ±80   | nA    |
| 2  | Input bias current, -IN      | $-I_B$   | 125°C | ±34V  | $V_{IN} = 0$                               |     | ±80   | nA    |
| 2  | Input offset current         | $I_{OS}$ | 125°C | ±34V  | $V_{IN} = 0$                               |     | ±30   | nA    |
| 4  | Output voltage, $I_o = 10A$  | $V_o$    | 25°C  | ±18V  | $R_L = 1\Omega$                            | 10  |       | V     |
| 4  | Output voltage, $I_o = 68mA$ | $V_o$    | 25°C  | ±40V  | $R_L = 500\Omega$                          | 34  |       | V     |
| 4  | Output voltage, $I_o = 4A$   | $V_o$    | 25°C  | ±30V  | $R_L = 6\Omega$                            | 24  |       | V     |
| 4  | Current limits               | $I_{CL}$ | 25°C  | ±16V  | $R_{CL} = 1\Omega, R_{CL} = .1\Omega$      | 5   | 7.9   | A     |
| 4  | Stability/noise              | $E_N$    | 25°C  | ±34V  | $R_L = 500\Omega, A_V = +1, C_L = 1.5nF$   |     | 1     | mV    |
| 4  | Slew rate                    | SR       | 25°C  | ±34V  | $R_L = 500\Omega$                          | 1.0 | 10    | V/μs  |
| 4  | Open loop gain               | $A_{OL}$ | 25°C  | ±34V  | $R_L = 500\Omega, F = 10Hz$                | 94  |       | dB    |
| 4  | Common-mode rejection        | CMR      | 25°C  | ±15V  | $R_L = 500\Omega, F = DC, V_{CM} = \pm 9V$ | 70  |       | dB    |
| 6  | Output voltage, $I_o = 10A$  | $V_o$    | -55°C | ±18V  | $R_L = 1\Omega$                            | 10  |       | V     |
| 6  | Output voltage, $I_o = 68mA$ | $V_o$    | -55°C | ±40V  | $R_L = 500\Omega$                          | 34  |       | V     |
| 6  | Output voltage, $I_o = 4A$   | $V_o$    | -55°C | ±30V  | $R_L = 6\Omega$                            | 24  |       | V     |
| 6  | Stability/noise              | $E_N$    | -55°C | ±34V  | $R_L = 500\Omega, A_V = +1, C_L = 1.5nF$   |     | 1     | mV    |
| 6  | Slew rate                    | SR       | -55°C | ±34V  | $R_L = 500\Omega$                          | 1.0 | 10    | V/μs  |
| 6  | Open loop gain               | $A_{OL}$ | -55°C | ±34V  | $R_L = 500\Omega, F = 10Hz$                | 94  |       | dB    |
| 6  | Common-mode rejection        | CMR      | -55°C | ±15V  | $R_L = 500\Omega, F = DC, V_{CM} = \pm 9V$ | 70  |       | dB    |
| 5  | Output voltage, $I_o = 8A$   | $V_o$    | 125°C | ±16V  | $R_L = 1\Omega$                            | 8   |       | V     |
| 5  | Output voltage, $I_o = 68mA$ | $V_o$    | 125°C | ±40V  | $R_L = 500\Omega$                          | 34  |       | V     |
| 5  | Output voltage, $I_o = 4A$   | $V_o$    | 125°C | ±30V  | $R_L = 6\Omega$                            | 24  |       | V     |
| 5  | Stability/noise              | $E_N$    | 125°C | ±34V  | $R_L = 500\Omega, A_V = +1, C_L = 1.5nF$   |     | 1     | mV    |
| 5  | Slew rate                    | SR       | 125°C | ±34V  | $R_L = 500\Omega$                          | 1.0 | 10    | V/μs  |
| 5  | Open loop gain               | $A_{OL}$ | 125°C | ±34V  | $R_L = 500\Omega, F = 10Hz$                | 94  |       | dB    |
| 5  | Common-mode rejection        | CMR      | 125°C | ±15V  | $R_L = 500\Omega, F = DC, V_{CM} = \pm 9V$ | 70  |       | dB    |

## BURN IN CIRCUIT



\* These components are used to stabilize device due to poor high frequency characteristics of burn in board.

\*\* Input signals are calculated to result in internal power dissipation of approximately 2.1W at case temperature = 125°C.