

# **Table 4 Group A Inspection**

SG	Parameter ***	Symbol	Temp.	Power	Test Conditions	Min	Max	Units
1	Quiescent Current	ΙQ	25°C	±150V	V <sub>IN</sub> = 0, A <sub>V</sub> = 100		25	mA
1	Input Offset Voltage	$V_{OS}$	25°C	±15V	$V_{IN} = 0$ , $A_{V} = 100$		±4	mV
1	Input Offset Voltage	$V_{OS}$	25°C	±150V	$V_{IN} = 0$ , $A_V = 100$		±2	mV
1	Input Bias Current, +IN	+I <sub>B</sub>	25°C	±150V	V <sub>IN</sub> = 0		±50	pA
1	Input Bias Current, -IN	-I <sub>B</sub>	25°C	±150V	V <sub>IN</sub> = 0		±50	рА
1	Input Offset Current	I <sub>OS</sub>	25°C	±150V	V <sub>IN</sub> = 0		±100	pA
3	Quiescent Current	$I_{Q}$	−55°C	±150V	V <sub>IN</sub> = 0, A <sub>V</sub> = 100		28	mA
3	Input Offset Voltage	$V_{OS}$	−55°C	±15V	$V_{IN} = 0$ , $A_V = 100$		±6.4	mV
3	Input Offset Voltage	$V_{OS}$	−55°C	±150V	$V_{IN} = 0$ , $A_V = 100$		±4.4	mV
3	Input Bias Current, +IN	+I <sub>B</sub>	−55°C	±150V	V <sub>IN</sub> = 0		±50	pА
3	Input Bias Current, –IN	$-I_B$	−55°C	±150V	V <sub>IN</sub> = 0		±50	pА
3	Input Offset Current	I <sub>OS</sub>	−55°C	±150V	V <sub>IN</sub> = 0		±50	pA
2	Quiescent Current	$I_{Q}$	125°C	±150V	V <sub>IN</sub> = 0, A <sub>V</sub> = 100		28	mA
2	Input Offset Voltage	$V_{OS}$	125°C	±15V	$V_{IN} = 0$ , $A_V = 100$		±7	mV
2	Input Offset Voltage	$V_{OS}$	125°C	±150V	$V_{IN} = 0$ , $A_V = 100$		±5	mV
2	Input Bias Current, +IN	+I <sub>B</sub>	125°C	±150V	V <sub>IN</sub> = 0		±10	nA
2	Input Bias Current, -IN	-I <sub>B</sub>	125°C	±150V	V <sub>IN</sub> = 0		±10	nA
2	Input Offset Current	I <sub>OS</sub>	125°C	±150V	V <sub>IN</sub> = 0		±10	nA
4	Output Voltage, I <sub>O</sub> = 200mA	$V_{O}$	25°C	±50V	R <sub>L</sub> = 200 Ω	40		V
4	Output Voltage, I <sub>O</sub> = 70mA	$V_{O}$	25°C	±150V	$R_L = 2 k\Omega$	141		V
4	Output Voltage, I <sub>O</sub> = 20mA	$V_{O}$	25°C	±48V	$R_L = 2 k\Omega$	40		V
4	Current Limits	$I_{CL}$	25°C	±50V	$R_{CL} = 10 \Omega$ , $R_{L} = 200 \Omega$	60	112	Α
4	Stability/Noise	E <sub>N</sub>	25°C	±150V	$C_C = 68pF, R_C = 100 \Omega, A_V$ = +1, $C_L = 470pF$		1	mV
4	Slew Rate	SR	25°C	±150V	$R_L = 2 k\Omega, A_V = 100, C_C = OPEN$	400		V/μs
4	Open Loop Gain	A <sub>OL</sub>	25°C	±150V	$R_L = 2 k\Omega$ , $F = 15 Hz$ , $C_C = OPEN$	96		dB
4	Common Mode Rejection	CMR	25°C	±150V	F = DC, V <sub>CM</sub> = ±90V	90		dB

## **PA85M**



SG	Parameter	Symbol	Temp.	Power	Test Conditions	Min	Max	Units
6	Output Voltage, I <sub>O</sub> = 200mA	Vo	<b>−</b> 55°C	±50V	R <sub>L</sub> = 200 Ω	40		V
6	Output Voltage, I <sub>O</sub> = 70mA	$V_{O}$	−55°C	±150V	$R_L = 2 k\Omega$	141		V
6	Output Voltage, I <sub>O</sub> = 20mA	$V_{O}$	−55°C	±48V	$R_L = 2 k\Omega$	40		٧
6	Stability/Noise	E <sub>N</sub>	−55°C	±150V	$C_C = 68pF, R_C = 100 \Omega, A_V$ = +1, $C_L = 470pF$		1	mV
6	Slew Rate	SR	−55°C	±150V	$R_L = 2 k\Omega$ , $A_V = 100$ , $C_C = OPEN$	400		V/μs
6	Open Loop Gain	$A_{OL}$	−55°C	±150V	$R_L = 2 k\Omega$ , $F = 15 Hz$ , $C_C = OPEN$	96		dB
6	Common Mode Rejection	CMR	−55°C	±150V	$F = DC$ , $V_{CM} = \pm 90V$	90		dB
5	Output Voltage, I <sub>O</sub> = 150mA	$V_{O}$	125°C	±40V	$R_L = 200 \Omega$	30		V
5	Output Voltage, I <sub>O</sub> = 70mA	$V_{O}$	125°C	±150V	$R_L = 2 k\Omega$	141		V
5	Output Voltage, I <sub>O</sub> = 20mA	$V_{O}$	125°C	±48V	$R_L = 2 k\Omega$	40		V
5	Stability/Noise	E <sub>N</sub>	125°C	±150V	$C_C = 68pF, R_C = 100 \Omega, A_V$ = +1, $C_L = 470pF$		1	mV
5	Slew Rate	SR	125°C	±150V	$R_L = 2 k\Omega$ , $A_V = 100$ , $C_C = OPEN$	400		V/μs
5	Open Loop Gain	$A_{OL}$	125°C	±150V	$R_L = 2 k\Omega$ , $F = 15 Hz$ , $C_C = OPEN$	96		dB
5	Common Mode Rejection	CMR	125°C	±150V	F = DC, V <sub>CM</sub> = ±90V	90		dB

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#### **BURN IN CIRCUIT**

100 kΩ

+15V

\*\*

100 kΩ

100 kΩ

\*\*

U.U.T

100 Ω

68pF

Figure 1: 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.
- \*\*\* An additional test is performed manually at  $T_C = 25^{\circ}$ C which stresses power supply, common mode range and output swing to  $\pm 225$ V (450V total).

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