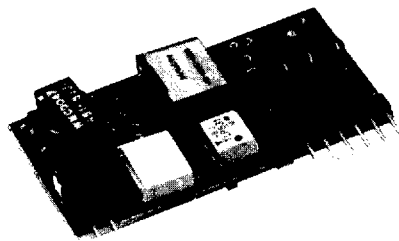


B-15-03

POWER SUPPLY MODULE

LPM 1000



FEATURES

- 3.75W/in³
- Wide range DC input
- Total output power of 3.0Watts
- Ideal for high impedance phone lines
- 75% minimum efficiency
- Isolated outputs to 500V
- Fully protected against load faults
- Rated operation life of 10 years
- 4 Outputs: $\pm 5V @ 0.15A$ and $\pm 11.5V @ 0.065A$
- 0 to 60°C ambient temperature operation

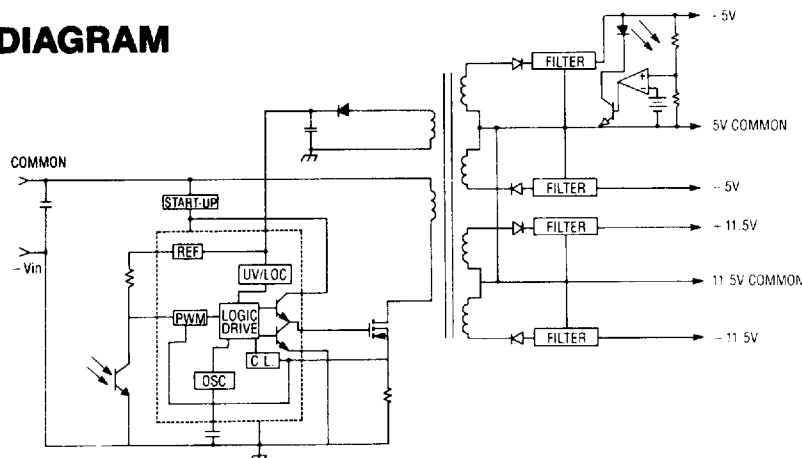
DESCRIPTION

The LPM 1000 is a four output power supply module. Outstanding features include a wide range DC input of 28 to 78 V to meet worldwide line requirements and isolated outputs that are fully protected against load faults. The LPM 1000 is a high density surface mount, PC board assembly whose compact size (2" $\times$ 1" $\times$ 0.4") and 3.0 W power capability make the LPM 1000 ideally suited for telephone applications.

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MAXIMUM	UNITS
Supply Voltage	V_S	78	Volts
Isolation		500	Volts
Operating Junction Temperature Range	T_J	0 to 60	°C
Storage Temperature Range	T_{STG}	-25 to 125	°C
Lead Temperature (Soldering, 10 Second Time Limit)	T_{LEAD}	215	°C

BLOCK DIAGRAM



LPM 1000

POWER SUPPLY MODULE

ELECTRICAL CHARACTERISTICS

Input voltage test conditions are as follows:

$V_{IN} = 28 \text{ VDC} - 78 \text{ VDC}$, $T_A = 0^\circ\text{C} - 60^\circ\text{C}$, $I_{OUTS} = \text{Rated unless otherwise specified.}$

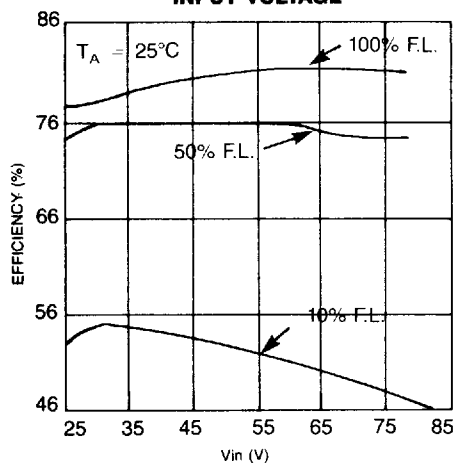
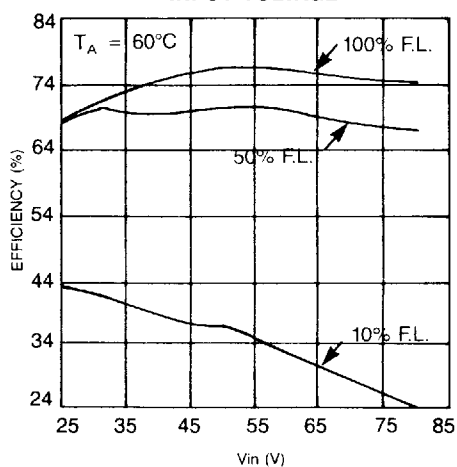
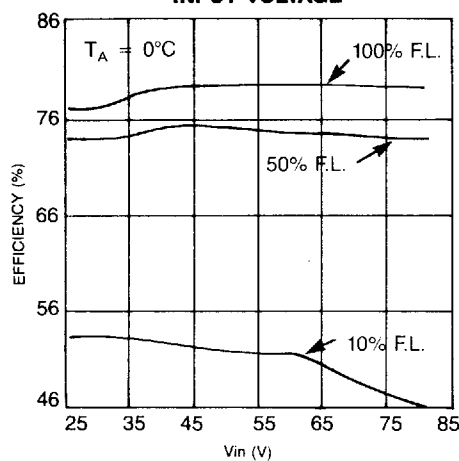
Parameter	Symbol	Test Conditions	RATING				Test Limits		Units
			+5V @ 0.15A	+11.5V @ 0.065A	-11.5V @ 0.065A	-5V @ 0.15A	Min.	Max.	
Initial Accuracy		$T_A = 25^\circ\text{C}$	± 3	± 4	± 4	± 3			% V_O
Temperature Coefficient	T_C	$V_{IN} = -42\text{VDC}$; all outputs at 10% I_{OUT} Rated	0.02	0.04	0.04	0.02			%/ $^\circ\text{C}$
Load Regulation	$REG_{(LOAD)}$	$V_{IN} = -42\text{VDC}$; all loads changing, 10% I_{OUT} Rated to I_{RATED} $T_A = 25^\circ\text{C}$	± 0.5	± 2.0	± 2.0	± 2.0			% V_O
Line Regulation	$REG_{(LINE)}$	Outputs at 10% full load $T_A = 25^\circ\text{C}$	± 0.5	± 1.0	± 1.0	± 0.5			% V_O
Cross Regulation		$T_A = 25^\circ\text{C}$	Reference	± 6	± 6	± 4			% V_O
Total Regulation ¹			± 3	± 7	± 7	± 5			% V_O
Transient Response		Half to full load; Full to half load $T_A = 25^\circ\text{C}$, all other outputs (10% of I_{OUT} Rated						0.5	mS
Noise/Ripple		$V_{IN} = -42\text{VDC}$; all outputs at full load, $T_A = 25^\circ\text{C}$						1	mS
Minimum Efficiency	η	$I_{OUT} = \text{Rated}$; All loads $V_{IN} = 42\text{V}$					75		%
Rated Operational Life							10		Years
Current Limit	I_{LIM}	All Outputs						200	mA

⁽¹⁾ Total regulation encompasses the effects of initial accuracy, temperature, load, line and cross regulation.

POWER SUPPLY MODULE

LPM 1000

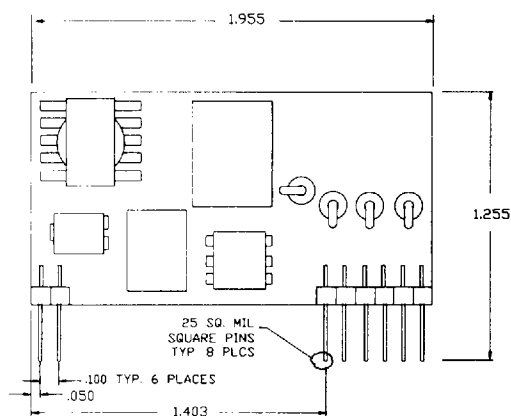
OPERATIONAL DATA

**SYSTEM EFFICIENCY VS
INPUT VOLTAGE****SYSTEM EFFICIENCY VS
INPUT VOLTAGE****SYSTEM EFFICIENCY VS
INPUT VOLTAGE**

LPM 1000

POWER SUPPLY MODULE**DEVICE OUTLINE**

TOP SIDE



BOTTOM SIDE

