



MILITARY DATA SHEET

MNLM120-5.0-K REV 0BL

Original Creation Date: 07/25/95
Last Update Date: 12/10/96
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THREE TERMINAL NEGATIVE REGULATOR

Industry Part Number

LM120K-5.0

NS Part Numbers

LM120K-5.0/883

Prime Die

LMJ120EG-5.0

Processing

MIL-STD-883, Method 5004

Quality Conformance Inspection

MIL-STD-883, Method 5005

Subgrp	Description	Temp (°C)
1	Static tests at	+25
2	Static tests at	+125
3	Static tests at	-55
4	Dynamic tests at	+25
5	Dynamic tests at	+125
6	Dynamic tests at	-55
7	Functional tests at	+25
8A	Functional tests at	+125
8B	Functional tests at	-55
9	Switching tests at	+25
10	Switching tests at	+125
11	Switching tests at	-55

Electrical Characteristics

DC/AC PARAMETERS

(The following conditions apply to all the following parameters, unless otherwise specified.)

DC: $V_{in} = -10V$, $I_L = 5mA$

AC: $V_{in} = -10V$, $I_L = 5mA$

SYMBOL	PARAMETER	CONDITIONS	NOTES	PIN-NAME	MIN	MAX	UNIT	SUB-GROUPS
I _q	Quiescent Current	$V_{in} = -7V$	4			2	mA	1, 2, 3
		$V_{in} = -25V$	4			2	mA	1, 2, 3
Delta I _q	Quiescent Current Change	$5mA \leq I_L \leq 1.5A$	4		-0.4	0.4	mA	1
		$5mA \leq I_L \leq 1.5A$	4		-0.5	0.5	mA	2, 3
		$-25V \leq V_{in} \leq -7V$	4		-0.4	0.4	mA	1
		$-25V \leq V_{in} \leq -7V$	4		-0.5	0.5	mA	2, 3
V _{out}	Output Voltage		4		-5.1	-4.9	V	1
		$V_{in} = -7.5V$	4		-5.2	-4.8	V	1, 2, 3
		$V_{in} = -7.5V$, $I_L = 1.5A$	4		-5.2	-4.8	V	1, 2, 3
		$V_{in} = -25V$	4		-5.2	-4.8	V	1, 2, 3
		$V_{in} = -25V$, $I_L = 1A$	4		-5.2	-4.8	V	1, 2, 3
R _{line}	Line Regulation	$-25V \leq V_{in} \leq -7V$	4		-25	25	mV	1
		$-25V \leq V_{in} \leq -7V$	4		-50	50	mV	2, 3
R _{load}	Load Regulation	$5mA \leq I_L \leq 1.5A$	4		-75	75	mV	1
		$5mA \leq I_L \leq 1.5A$	4		-100	100	mV	2, 3
I _{os}	Short Circuit Current	$V_{in} = -25V$	2, 4		-3	-0.4	A	1
R _r	Ripple Rejection	$f = 120Hz$, $I_L = 350mA$, $e_{in} = 1V(RMS)$	3, 4		54		dB	4
Theta _{JC}	Thermal Resistance	Junction to Case	1, 4			3	C/W	
Theta _{JA}	Thermal Resistance	Junction to Ambient	1, 4			35	C/W	

DC PARAMETERS: DRIFT VALUES

(The following conditions apply to all the following parameters, unless otherwise specified.)

DC: $V_{in} = -10V$, $I_L = 5mA$. "Deltas not required on B-Level product. Deltas required for S-Level product ONLY as specified on Internal Processing Instructions (IPI)."

I _q	Quiescent Current	$V_{in} = -7V$	4		-0.2	0.2	mA	1
V _{out}	Output Voltage	$V_{in} = -7.5V$	4		-0.05	0.05	V	1

Note 1: Guaranteed parameter not tested.

Note 2: Data log will have negative readings.

(Continued)

Note 3: Bench test, use 70256656.

Note 4: Pre Burn-In Stress Test per (SG)RPI-3-371.

Graphics and Diagrams

GRAPHICS#	DESCRIPTION
09107HR	(blank)
K02CRB	(blank)

See attached graphics following this page.