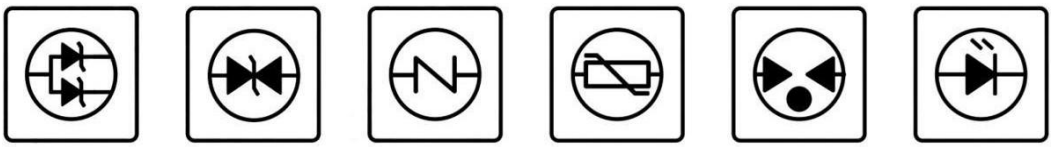
MSKSEMI 美森科
SEMICONDUCTOR



NCP1117LPSTXXT3G-MS

Product specification

NCP1117LPSTXXT3G-MS

概述

NCP1117LPSTXXT3G-MS 是一款低压差的线性稳压器。

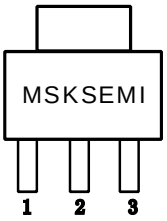
特点

- 包括三端可调输出和固定电压输出版本（固定电压包括 1.2V,1.5V,1.8V，2.5V，3.3V ，5V 等，其他电压规格可根据用户定制）
- 最大输出电流为 1A
- 输出电压精度高达±2%
- 稳定工作电压范围为高达 12V
- 电压线性度为 0.2%
- 负载线性度为 0.4%
- 环境温度： T_A 的范围是-20℃~125℃

用途

- 计算机主板、显卡
- LCD 监视器及 LCD TV
- DVD 解码板
- ADSL 等设备
- 开关电源的后级稳压

包装和订单信息

产品编号	输出电压	封装		引脚排列	管体标记	最小包装(PCS)
NCP1117LPST12T3G-MS	1.2V	SOT-223			MSKSEMI 17L12 MS ***	2500
NCP1117LPST15T3G-MS	1.5V				MSKSEMI 17L15 MS ***	2500
NCP1117LPST18T3G-MS	1.8V				MSKSEMI 17L18 MS ***	2500
NCP1117LPST25T3G-MS	2.5V				MSKSEMI 17L25 MS ***	2500
NCP1117LPST33T3G-MS	3.3V				MSKSEMI 17L33 MS ***	2500
NCP1117LPST50T3G-MS	5.0V				MSKSEMI 17L50 MS ***	2500
NCP1117LPSTADT3G-MS	ADJ				MSKSEMI 17LAD MS ***	2500

注：***代表内部生产批号

引脚定义

引脚号	符号	定义
1	GND	接地脚
2	Vout	输出端
3	Vin	输入端

固定电压型

引脚号	符号	定义
1	Adj.	可调端
2	Vout	输出端
3	Vin	输入端

可调电压型

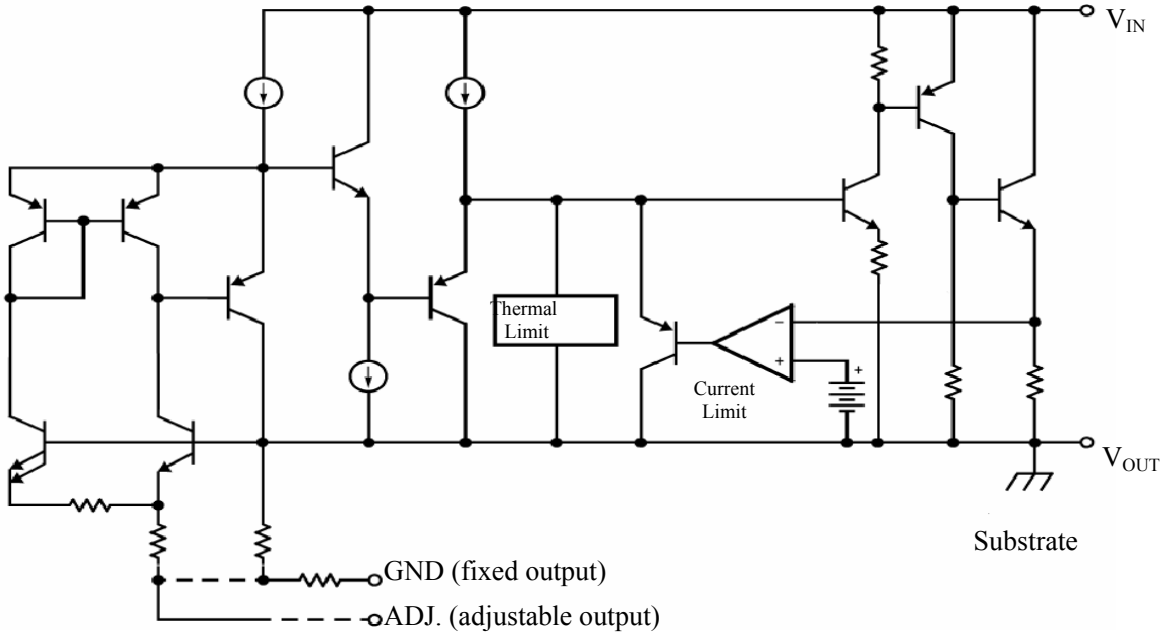
极限值

参 数 名 称	符 号	数值	单位
最大输入电压	Vin	18	V
最大节温	TJ	125	℃
最大环境温度	TA	125	℃
贮存温度	Ts	-65~ +150	℃
焊接温度和时间		300℃,10S	

推荐工作条件

名称	最小	推荐	最大	单位
输入电压范围			15	V
工作环境温度	0		125	℃

功能图



主要参数和工作特性

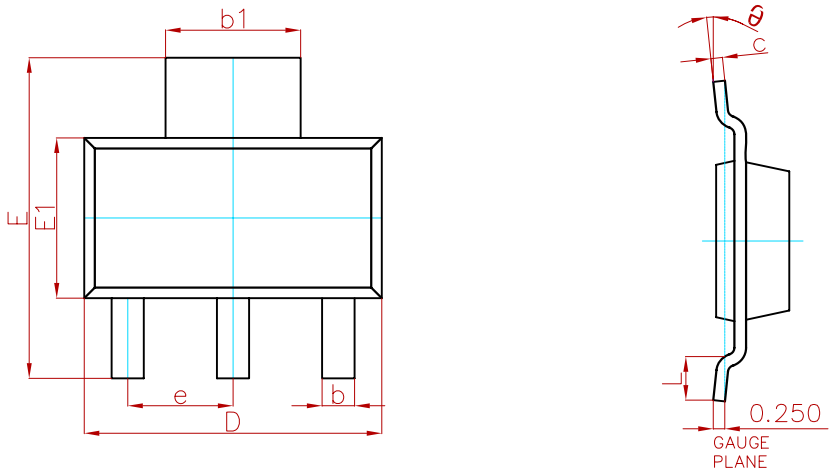
Tj=25℃

参数	参数说明	条件	最小值	典型值	最大值	单位
Vref	参考电压	Iout=10mA, Vin-Vout=2V 10mA≤Iout≤1A ,1.5V≤Vin-Vout≤10V	1.225	1.25	1.275	V
Vout	输出电压	NCP1117LPST12T3G-MS 10mA≤Iout≤1A ,2.7V≤Vin≤10V	1.176	1.2	1.224	V
		NCP1117LPST15T3G-MS 10mA≤Iout≤1A ,3.0V≤Vin≤10V	1.47	1.5	1.53	V
		NCP1117LPST18T3G-MS 10mA≤Iout≤1A ,3.25 V≤Vin≤10V	1.764	1.80	1.836	V
		NCP1117LPST25T3G-MS 10mA≤Iout≤1A ,3.9 V≤Vin≤10V	2.45	2.50	2.55	V
		NCP1117LPST33T3G-MS 10mA≤Iout≤1A , 5.3 V≤Vin≤12V	3.235	3.3	3.365	V
		NCP1117LPST50T3G-MS 10mA≤Iout≤1A , 6.5V≤Vin≤12V	4.9	5	5.1	V
ΔVout	电压线性度	NCP1117LPSTADT3G-MS Iout=10mA, V≤Vin-Vout≤10V		5	18	mV
		NCP1117LPST12T3G-MS Iout=10mA, 2.7V≤Vin≤10V		5	18	mV
		NCP1117LPST15T3G-MS Iout=10mA, 2.75V≤Vin≤10V		5	18	mV
		NCP1117LPST18T3G-MS Iout=10mA, 3.25 V≤Vin≤10V		5	18	mV
		NCP1117LPST25T3G-MS Iout=10mA, 3.9 V≤Vin≤10V		5	18	mV
		NCP1117LPST33T3G-MS Iout=10mA, 5.3 V≤Vin≤12V		9	18	mV
		NCP1117LPST50T3G-MS Iout=10mA,6.5V≤Vin≤12V		9	18	mV
ΔVout	负载线性度	NCP1117LPSTADT3G-MS Vin = 3.25V, 10mA≤Iout≤1A		9	18	mV
		NCP1117LPST12T3G-MS Vin = 2.7 V, 10mA≤Iout≤1A		9	18	mV
		NCP1117LPST15T3G-MS Vin = 3.25V, 10mA≤Iout≤1A		9	18	mV

主要参数和工作特性

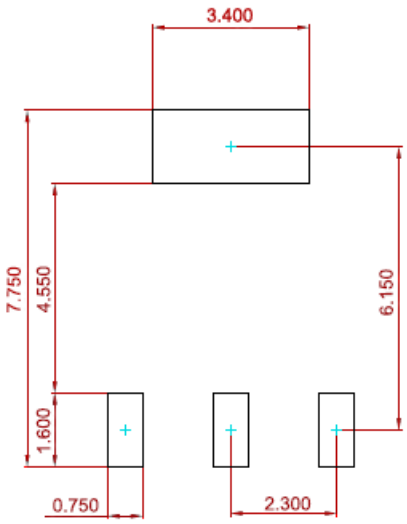
		NCP1117LPST18T3G-MS Vin＝3.25V, 10mA≤Iout≤1A		10	18	mV
		NCP1117LPST25T3G-MS Vin＝4.5 V, 10mA≤Iout≤1A		10	18	mV
		NCP1117LPST33T3G-MS Vin=5.3V, 0≤Iout≤1A		12	20	mV
		NCP1117LPST50T3G-MS Vin=6.5V, 0≤Iout≤1A		12	20	mV
Vin-Vout	最小输入输出电压差	ΔVout, ΔVref,=1%，Iout=1A			1.4	V
Ilimit	最小负载电流	NCP1117LPSTADT3G-MS			10	mA
Iq	静态电流	NCP1117LPSTADT3G-MS) Vin＝4.0V			12	mA
		NCP1117LPST12T3G-MS, Vin＝4.8V			12	mA
		NCP1117LPST15T3G-MS,Vin＝4.8V			12	mA
		NCP1117LPST18T3G-MS,Vin＝4.8V			12	mA
		NCP1117LPST25T3G-MS,Vin＝4.8V			12	mA
		NCP1117LPST33T3G-MS,Vin＝4.8V			12	mA
		NCP1117LPST50T3G-MS,Vin＝4.8V			12	mA

封装信息



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	——	1.800	——	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	——	0.030	——
θ	0°	10°	0°	10°

焊盘布局建议



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.050mm.
3.The pad layout is for reference purposes only.

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