MSKSEMI 美森科
SEMICONDUCTOR

ESD TVS TSS MOV GDT PLED

AMS1117-XX(MS)
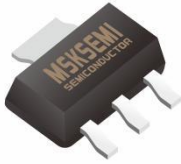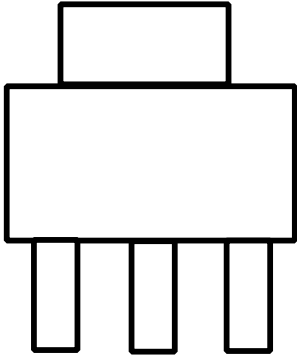
产品规格手册

概述

AMS1117-XX(MS) 是一款低压差的线性稳压器。

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

主要特点

- 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,1.8V，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： TA 的范围是-20℃~125℃

封装形式及引脚定义

封装图	引脚排列
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SOT-223	**1 2 3**

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

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

功能图：
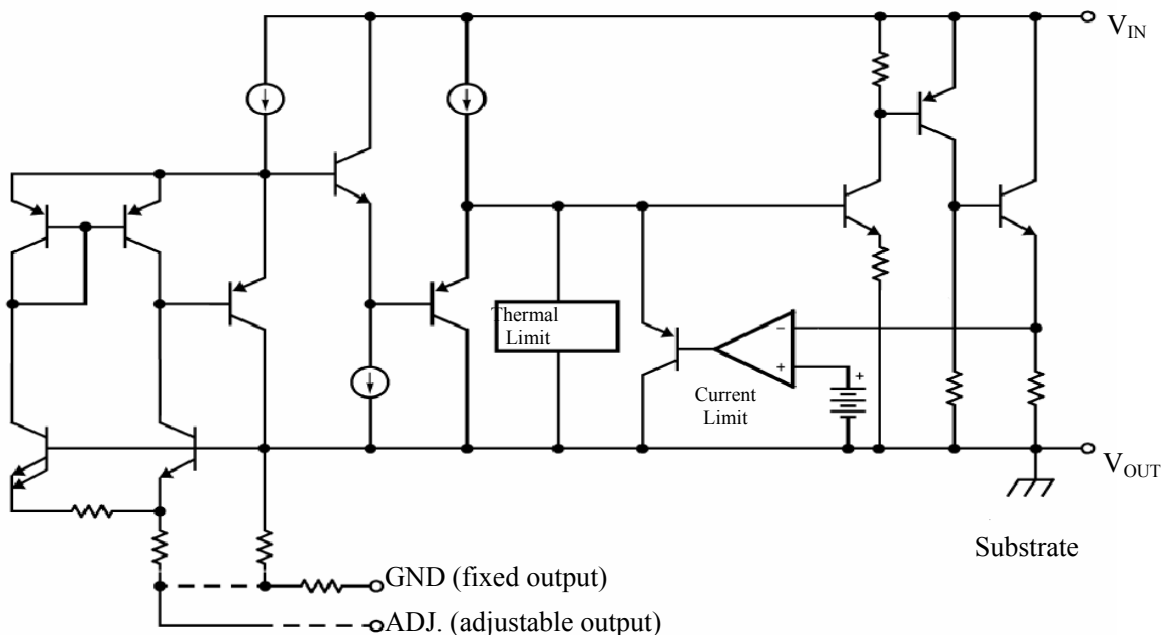
极限值

参 数 名 称	符 号	数 值	单位
最大输入电压	Vin	18	V
最大节温	TJ	85	°C
最大环境温度	TA	125	°C
贮存温度	Ts	-65~ +150	°C
焊接温度和时间		300°C,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	°C

主要参数和工作特性：

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	AMS1117-1.2(MS) 10mA≤Iout≤1A ,2.7V≤Vin≤10V	1.176	1.2	1.224	V
		AMS1117-1.5(MS) 10mA≤Iout≤1A ,3.0V≤Vin≤10V	1.47	1.5	1.53	V
		AMS1117-1.8(MS) 10mA≤Iout≤1A ,3.25 V≤Vin≤10V	1.764	1.80	1.836	V
		AMS1117-2.5(MS) 10mA≤Iout≤1A ,3.9 V≤Vin≤10V	2.45	2.50	2.55	V
		AMS1117-3.3(MS) 10mA≤Iout≤1A , 5.3 V≤Vin≤12V	3.235	3.3	3.365	V
		AMS1117-5.0(MS) 10mA≤Iout≤1A , 6.5V≤Vin≤12V	4.9	5	5.1	V

主要参数和工作特性：

ΔVout	电压线性度	AMS1117-ADJ(MS) Iout=10mA,　　V≤Vin-Vout≤10V		5	18	V
		AMS1117-1.2(MS) Iout=10mA, 2.7V≤Vin≤10V		5	18	V
		AMS1117-1.5(MS) Iout=10mA, 2.75V≤Vin≤10V		5	18	V
		AMS1117-1.8(MS) Iout=10mA, 3.25 V≤Vin≤10V		5	18	V
		AMS1117-2.5(MS) Iout=10mA,　　3.9 V≤Vin≤10V		5	18	V
		AMS1117-3.3(MS) Iout=10mA, 5.3 V≤Vin≤12V		9	18	V
		AMS1117-5(MS) Iout=10mA,6.5V≤Vin≤12V		9	18	V
ΔVout	负载线性度	AMS1117-ADJ(MS) Vin = 3.25V, 10mA≤Iout≤1A		9	18	V
		AMS1117-1.2(MS) Vin = 2.7 V, 10mA≤Iout≤1A		9	18	mV
		AMS1117-1.5(MS) Vin = 3.25V, 10mA≤Iout≤1A		9	18	mV

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主要参数和工作特性：

		AMS1117-1.8(MS) Vin = 3.25V, 10mA≤Iout≤1A		10	18	mV
		AMS1117-2.5(MS) Vin = 4.5 V, 10mA≤Iout≤1A		10	18	mV
		AMS1117-3.3(MS) Vin=5.3V, 0≤Iout≤1A		12	20	mV
		AMS1117-5.0(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	AMS1117-ADJ(MS)			10	mA
Iq	静态电流	AMS1117-ADJ(MS) Vin = 4.0V			12	A
		AMS1117-1.2(MS),Vin = 4.8V			12	A
		AMS1117-1.5(MS),Vin = 4.8V			12	A
		AMS1117-1.8(MS),Vin = 4.8V			12	mA
		AMS1117-2.5(MS),Vin = 4.8V			12	mA
		AMS1117-3.3(MS),Vin = 4.8V			12	mA
		AMS1117-5.0(MS),Vin = 4.8V			12	mA

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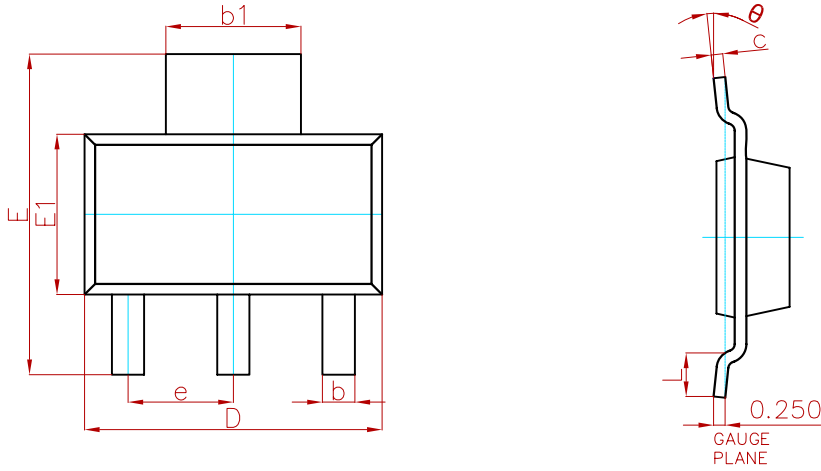
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	——	1.800	——	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130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

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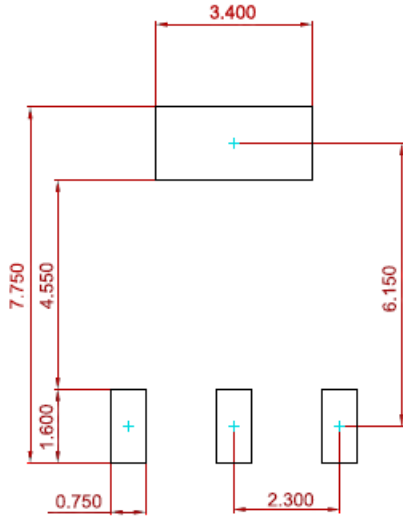
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.050mm.
3.The pad layout is for reference purposes only.

卷轴规格

P/N	PKG	QTY
AMS1117-XX(MS)	SOT-223	2500

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