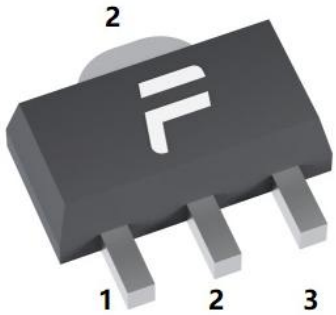
HT7333

SOT-89-3L LDO High Input Voltage Three Terminal Regulator低落差高耐压三端稳压 IC

■Features 特点



1.GND 2.Vi 3.Vo
Low Dropout Voltage 低落差电压：< 0.3V
Low Quiescent Current 低静态电流： 1.5μA
High Input Voltage 高输入电压(耐压)：Up to 高达 24V
High Precision Output Voltage 高精度输出电压：±2%
具过温保护、过流和短路保护功能

■Application 应用

Battery Power Supply Equipment 电池供电设备
Communication Equipment 通信设备
Audio/Video Equipment 音视频设备
Monitor Equipment 监控设备

■Absolute Maximum Ratings 最大额定值

(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃)

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Input Voltage Limit 输入电压极限	V_i	24	V
Operating Current 工作电流	I_O	300	mA
Power dissipation 耗散功率	P_D	500	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\Theta JA}$	250	℃/W
Solder Temperature/Time 焊接温度/时间	Td	260/10	℃/S
Operating Ambient Temperature 工作温度	T_A	-40~+85	℃
Junction and Storage Temperature 结温和储藏温度	T_J,T_{stg}	-50to+125℃	

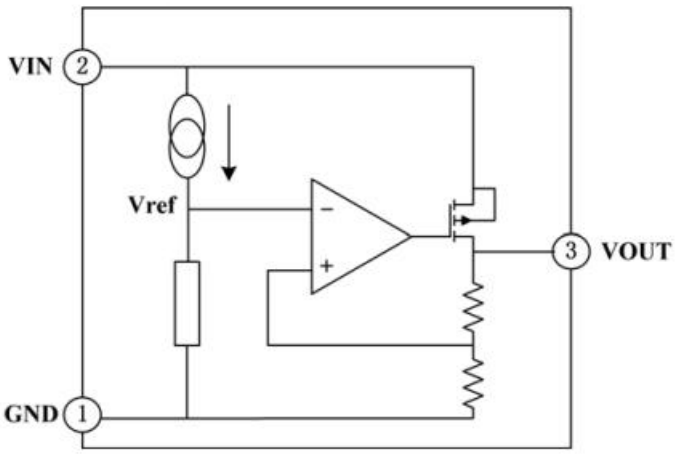
■Electrical Characteristics 电特性

HT7333 (T_{opt}=25℃)

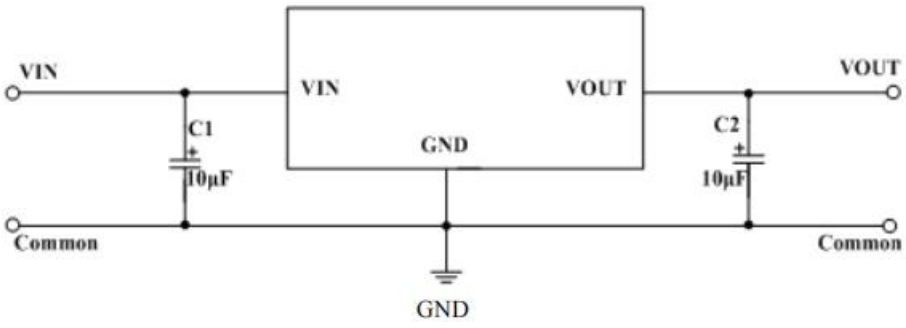
Characteristic 特性参数	Symbol 符号	Test Condition 测试条件	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Output Voltage 输出电压	V_O	I_O=10mA V_I=5.3V	3.234	3.3	3.366	V
Output Current 输出电流	I_O	V_I=5.3V	300			mA
Dropout Voltage 落差电压	V_D	I_O=100mA ΔV_O=2%		195	300	mV
Quiescent Current 静态电流	I_q	I_O=0		1.5	3	μA
Line Regulation 线性调整	$\Delta V_O/\Delta V_i*V_O$	I_O=1mA 4.3≤V_I≤20		0.2		%/V
Load Regulation 负载调整	ΔV_O	1mA≤I_O≤300mA V_I=5.5V		37	100	mV
Output Short Current 输出短路电流	I_{lim}	V_O=0V		400		mA
Temperature Finger 温度系数	$\Delta V_O/\Delta Ta*V_O$	I_O=10mA V_I=5.3V -40℃≤Ta≤85℃		±100		ppm/℃

■Application Circuit 应用电路

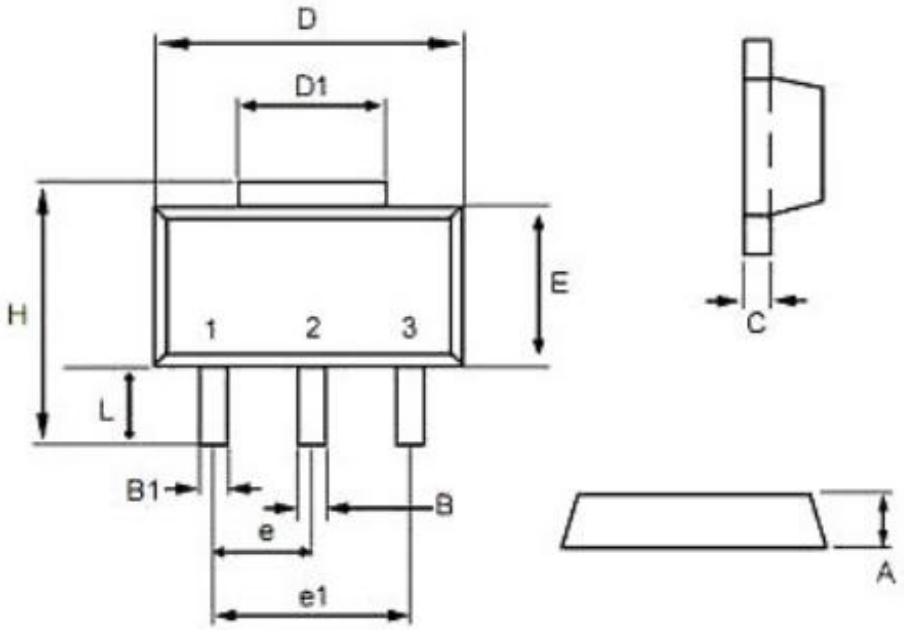
Block Circuit 电路框图



Basic Circuit 基本电路



■**SOT-89-3L Dimension 外形封装尺寸**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.40	1.60	0.055	0.063
B	0.40	0.56	0.016	0.022
B1	0.35	0.48	0.014	0.019
C	0.35	0.44	0.014	0.017
D	4.40	4.60	0.173	0.181
D1	1.35	1.83	0.053	0.072
e	1.45	1.55	0.057	0.061
e1	2.95	3.05	0.116	0.120
E	2.29	2.60	0.090	0.102
H	3.75	4.25	0.148	0.167
L	0.80	1.20	0.031	0.047