

/ Descriptions

V_{OW0};< H 1 4
Low dropout linear regulator in a SOT-89 Plastic Package .

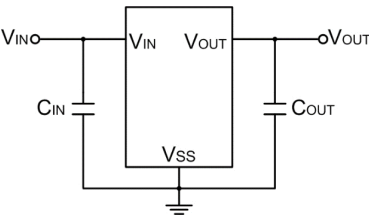
/ Features

H 2uA
250mA
H 450mV@100mA(V_{OUT}=3.3V)
±2%
70dB@1kHz
H 90uV_{RMS} ε 10Hz~100kHz ζ
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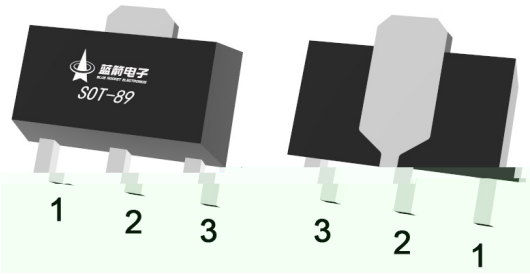
/ Applications

1 2 3
1 2 3
1 2 3
1 2 3
1 2 3

/ Equivalent Circuit



/ Pinning



PIN1 GND PIN 2 VIN PIN 3 VOUT

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

符号	参数	最大值	单位
V_{IN}	输入电压	-0.3 to 40	V
I_{OUT}	输出电流	250	mA
P_D	功耗	0.6	W
T_{stg}	存储温度	-40 to +125	°C
T_A	环境温度	-40 to +85	
T_{sold}	焊接温度	260	°C
ESD 耐受能力	HBM	2	kV
	MM	200	V

注：1. 绝对最大额定值是指在规定的工作条件下，长期可靠工作时允许的最大值。2. 超过绝对最大额定值使用，可能会导致器件永久性损坏。3. 以上参数仅为规定工作条件下的最大值，我们不建议器件在绝对最大额定值条件下长期工作，否则可能会影响器件的稳定性。

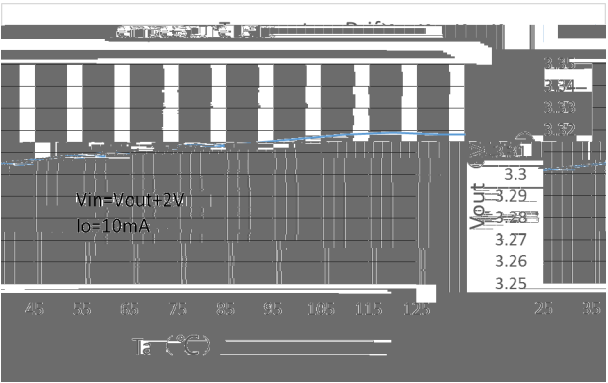
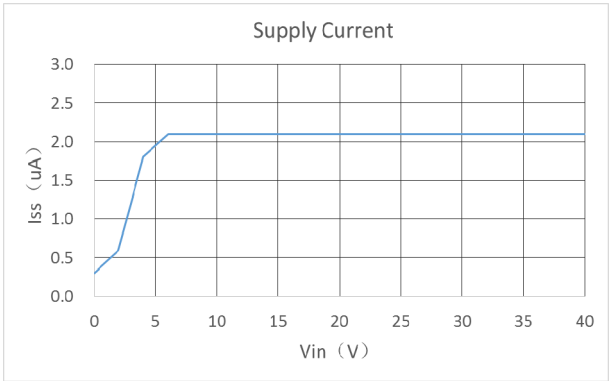
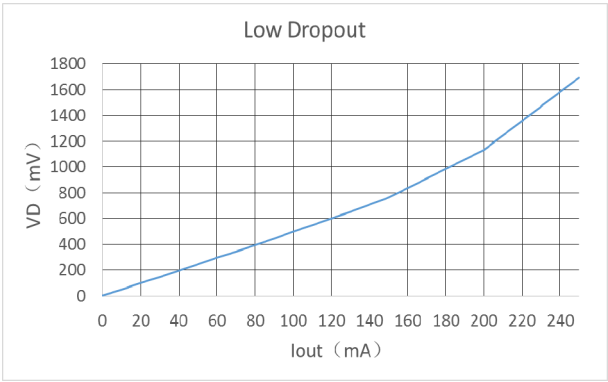
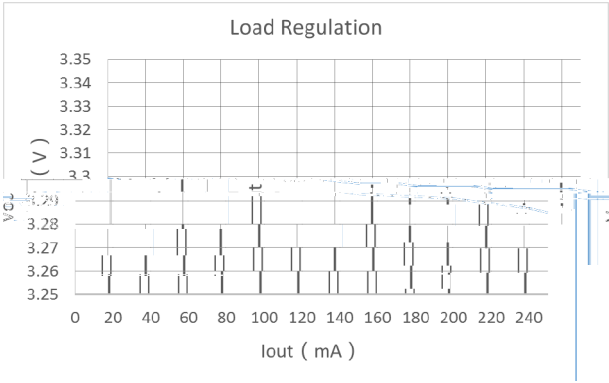
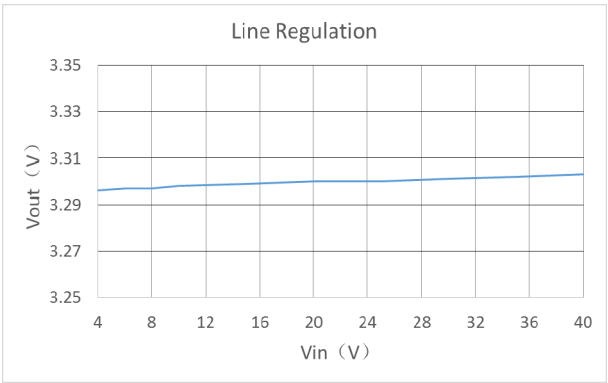
Notes: If the device operating conditions over the maximum rating of the above-mentioned conditions, may cause permanent damage to the device. The above parameters is only part of the operating conditions the maximum, we do not recommend the device running outside the scope of this specification. If the device to work long hours under the condition of absolute maximum limit, its stability may be affected.

/ Electrical Characteristics($T_A=25$, $V_{IN}=V_{OUT}+2V$, $C_{IN}=C_{OUT}=1\mu F$, unless otherwise specified)

符号	参数	测试条件	典型值	最大值	最小值	单位
V_{IN}	输入电压			36		V
$V_{OUT} \pm 1\%$	输出电压	$I_{OUT}=10mA$	3.234	3.3	3.366	V
$V_{dif} \pm 2\%$	差分电压	$I_{OUT}=100mA$ $V_{OUT}=3.3V$		450		mV
I_{SS}	静态电流	$I_{OUT}=0mA$		2	5	uA
V_{load}	负载电压	$V_{IN}=V_{OUT} + 2V$ $I_{OUT}=1mA$ to $250mA$		20	50	mV
V_{line}	线性电压	$I_{OUT}=10mA$ $V_{OUT} + 2V$ to V_{IN} 36V		10	50	mV
$V_{OUT}/(T_A \cdot V_{OUT})$	温度系数	$I_{OUT}=10mA$ -40 to T_A 85		50		ppm/
I_{LIM}	负载电流	$V_{OUT}=0.5 \times V_{OUT(Normal)}$, $V_{IN}=5.3V$		350		mA
I_{SHORT}	短路电流	$V_{OUT}=V_{SS}$		100		mA

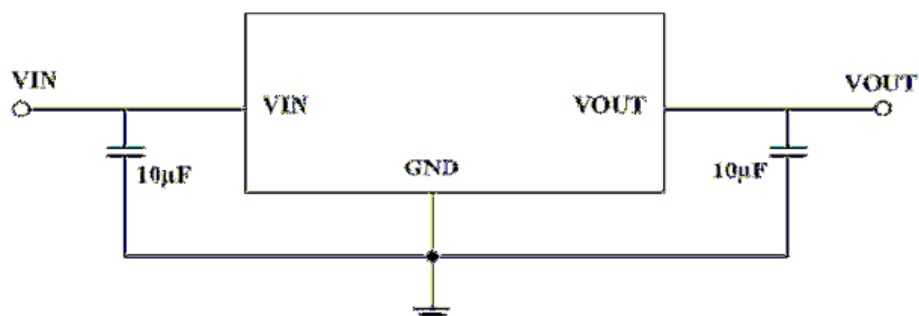
Ω	γ	⌋ γ	ω	ε	ω	μ
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/ Electrical Characteristic Curve

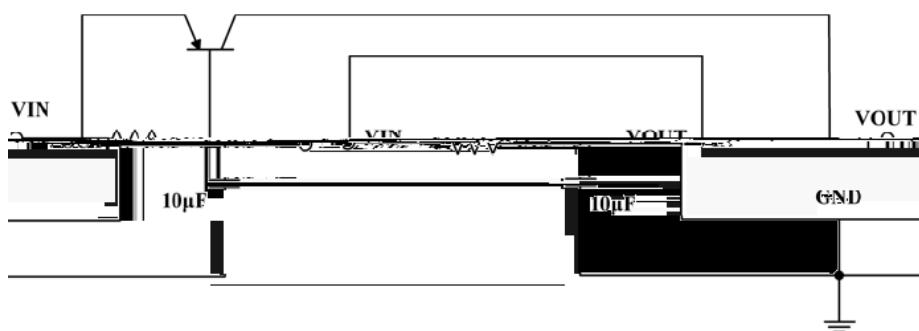


/ Typical Application Circuit

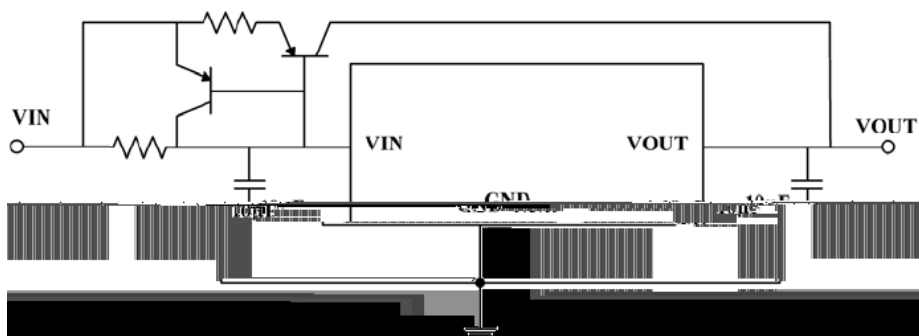
1 / Basic Application



2 / High Output Current Voltage Regulator

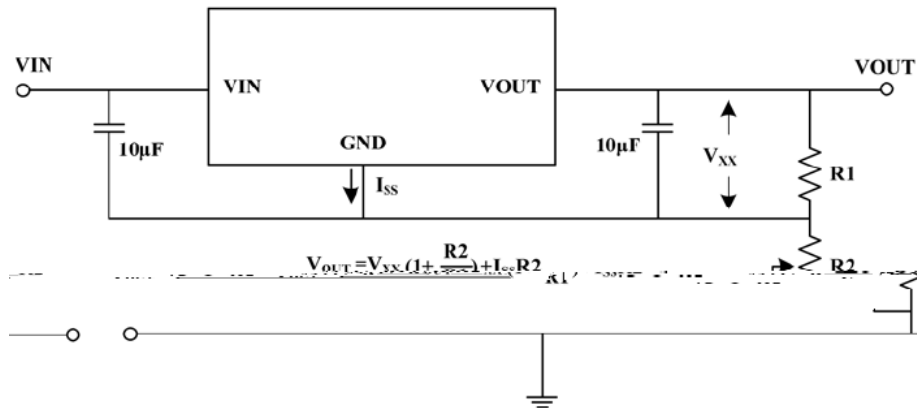


3 / Short-Circuit Protection

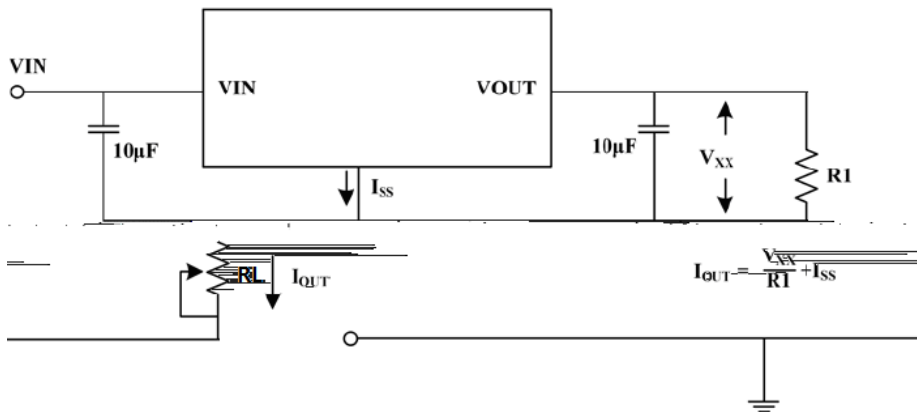


/ Typical Application Circuit

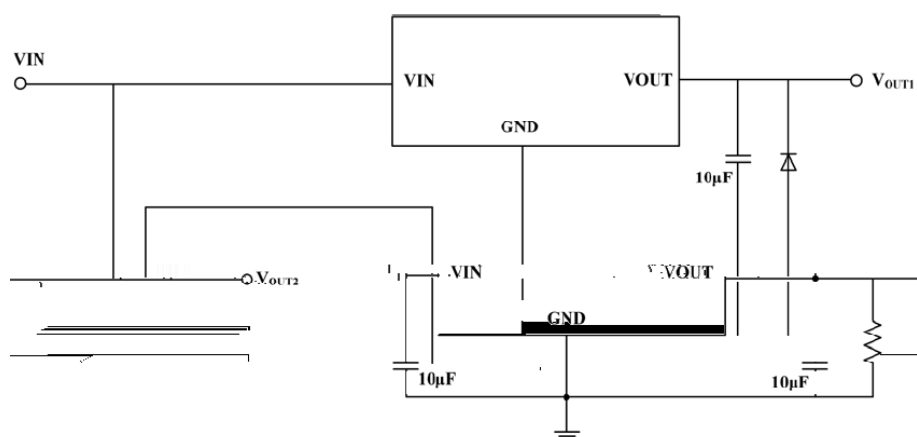
/ Circuit for Increasing Output Voltage



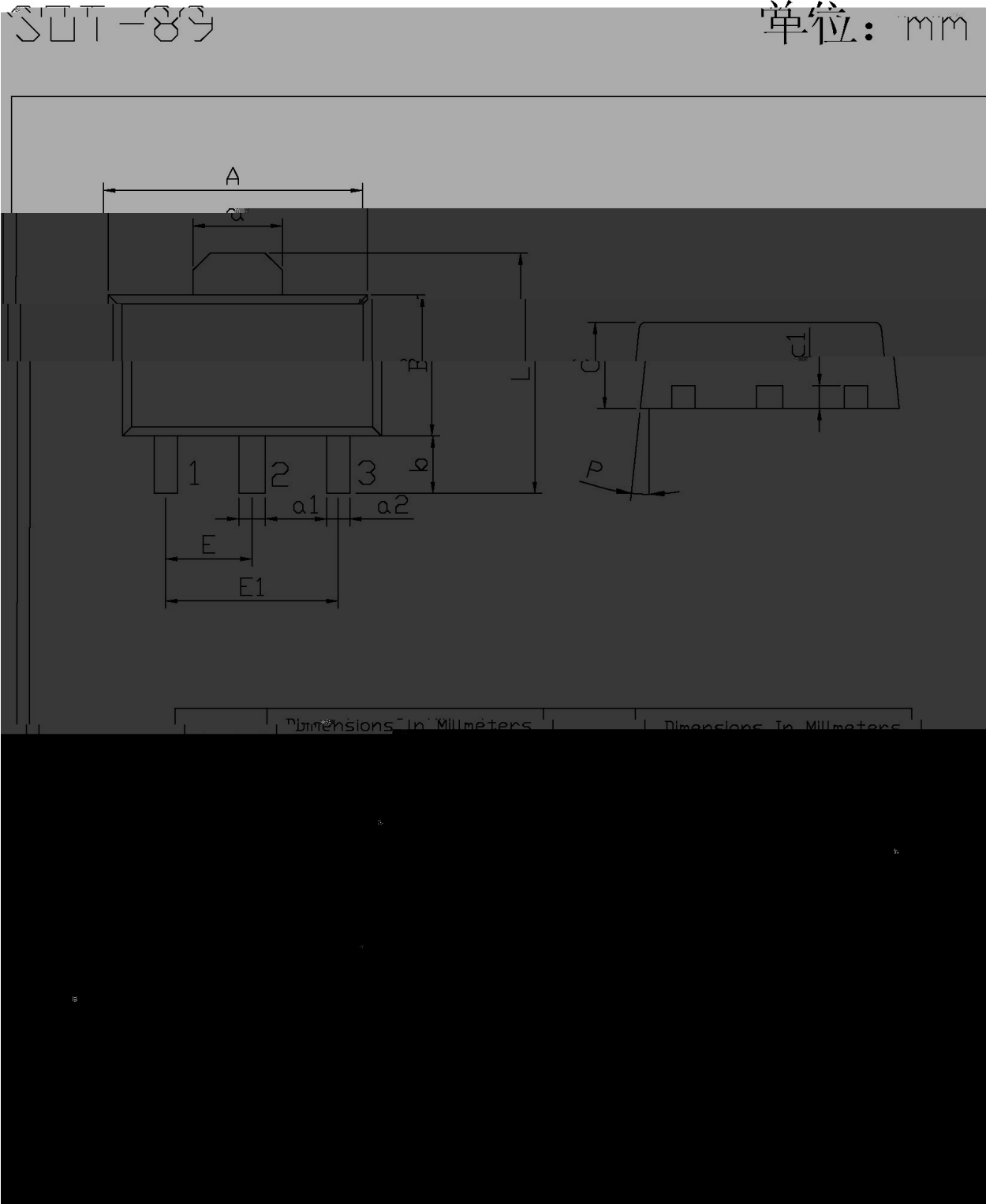
/ Constant Current Regulator



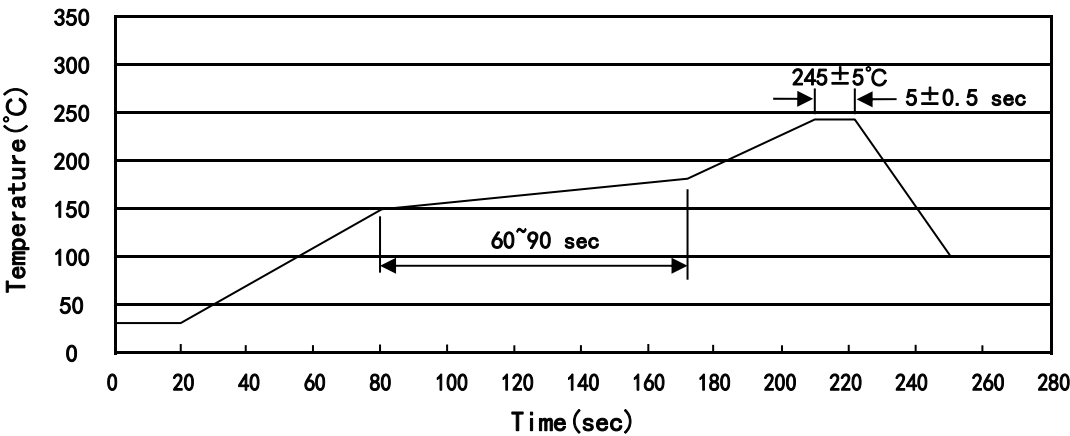
/ Double Output Circuit



/ Package Dimensions



() / Temperature Profile for IR Reflow Soldering(Pb-Free)



- Note:
1. Preheating:150~180 , Time:60~90sec.

2. Peak Temp.:245±5 , Duration:5±0.5sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

- 260±5 °H 10±1 sec.
- Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-89	1,000	10	10,000	4	40,000	7 ×12	210×205×205	445×435×230

/ Notices