

/ Descriptions

VOW0;< H 1 4
Low dropout linear regulator in a SOT-89 Plastic Package .

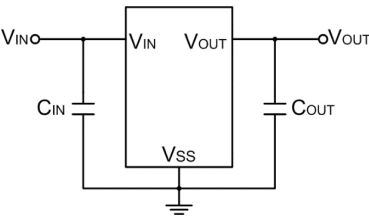
/ Features

H 2uA
250mA
H 450mV@100mA(VOUT=3.3V)
±2%
70dB@1kHz
H 90uVRMS ε 10Hz~100kHz ζ
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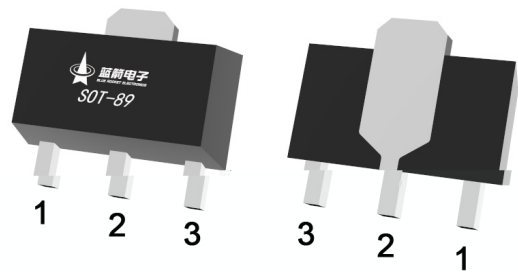
/ Applications

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/ Equivalent Circuit



/ Pinning



PIN1 GND PIN 2 VIN PIN 3 VOUT

/ Marking

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See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

符号	参数	数值	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：如果器件在上述最大额定值条件下工作，可能会导致器件永久损坏。上述参数只是器件工作条件的最大范围，我们不建议器件在此范围之外工作。如果器件在绝对最大额定值条件下长时间工作，其稳定性可能会受到影响。

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.

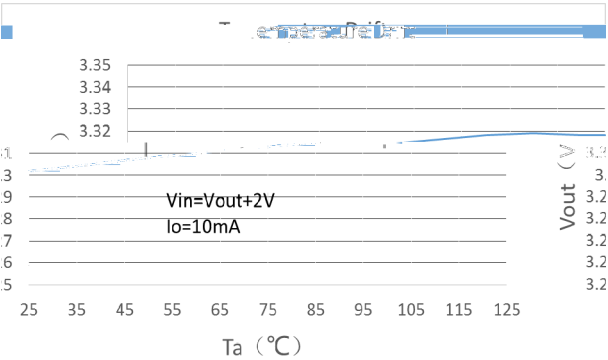
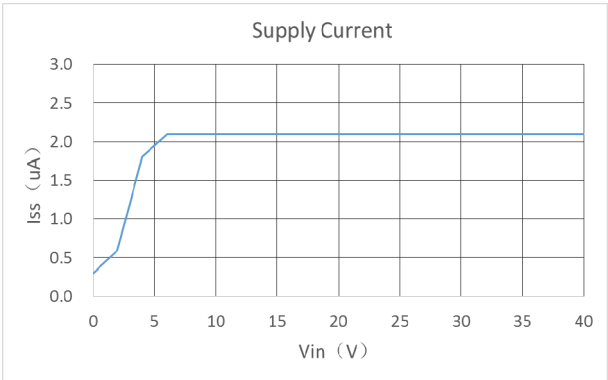
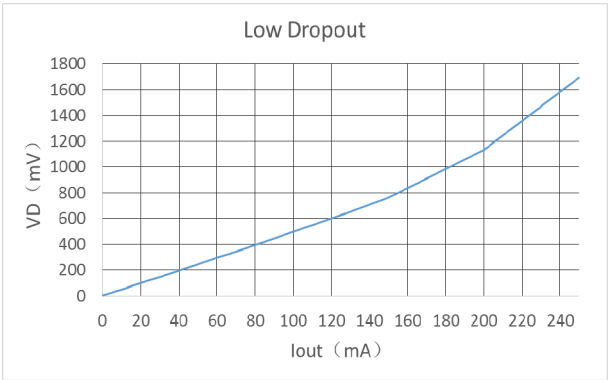
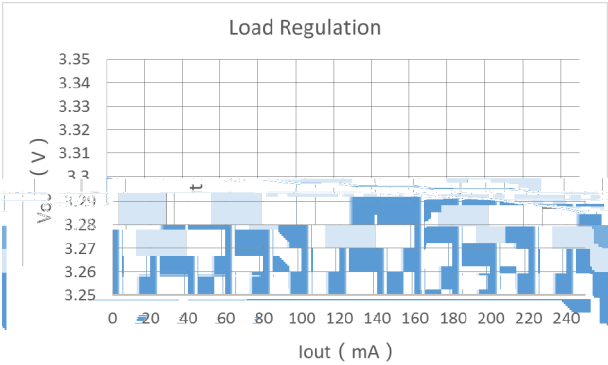
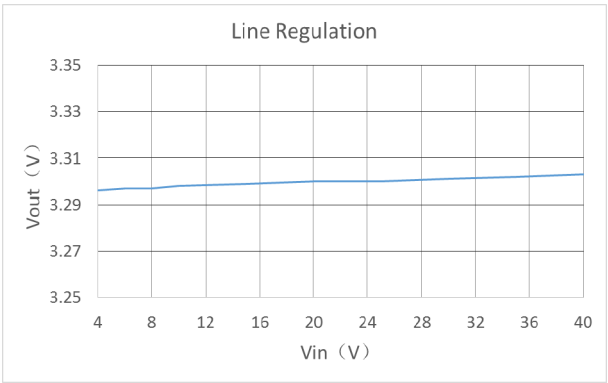
/ Electrical Characteristics($T_A=25$, $V_{IN}=V_{OUT}+2V$, $C_{IN}=C_{OUT}=1\mu F$, unless otherwise specified)

符号	参数	测试条件	η	ϵ	ω	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	$V_{IN}=V_{OUT} + 2V$ $1mA \leq I_{OUT} \leq 250mA$		20	50	mV
V_{line}	线性电压	$I_{OUT}=10mA$ $V_{OUT} + 2V \leq V_{IN} \leq 36V$		10	50	mV
$V_{OUT}/(T_A \cdot V_{OUT})$	温度系数	$I_{OUT}=10mA$ $-40 \leq T_A \leq 85$		50		ppm/
I_{LIM}	负载限制电流	$V_{OUT}=0.5 \times V_{OUT(Normal)}$, $V_{IN}=5.3V$		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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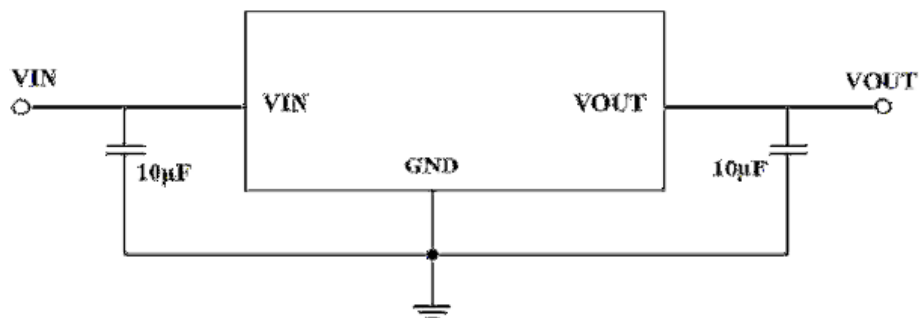
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/ Electrical Characteristic Curve

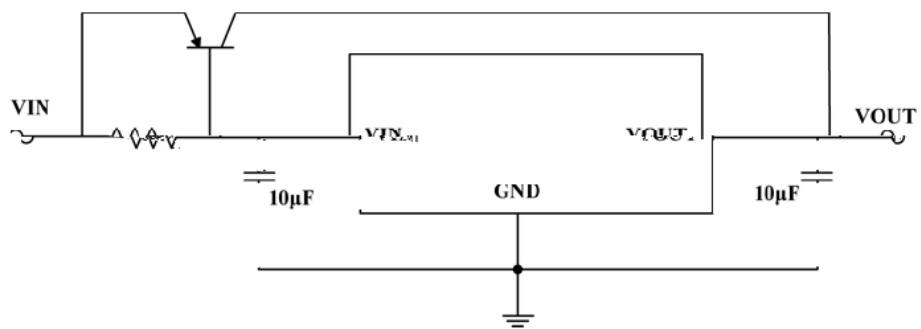


/ Typical Application Circuit

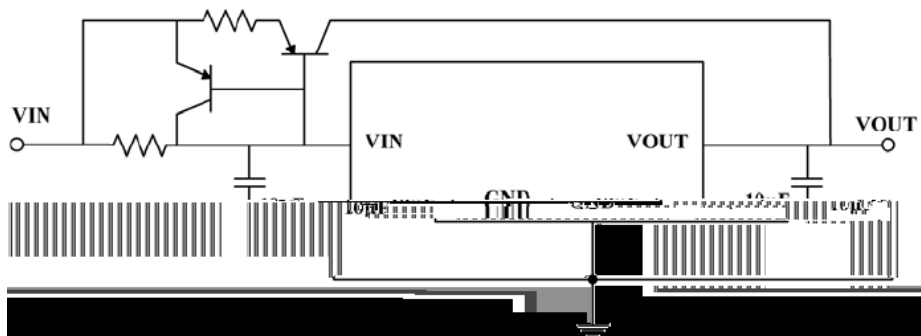
↑ / Basic Application



⌋ ⌋ / High Output Current Voltage Regulator

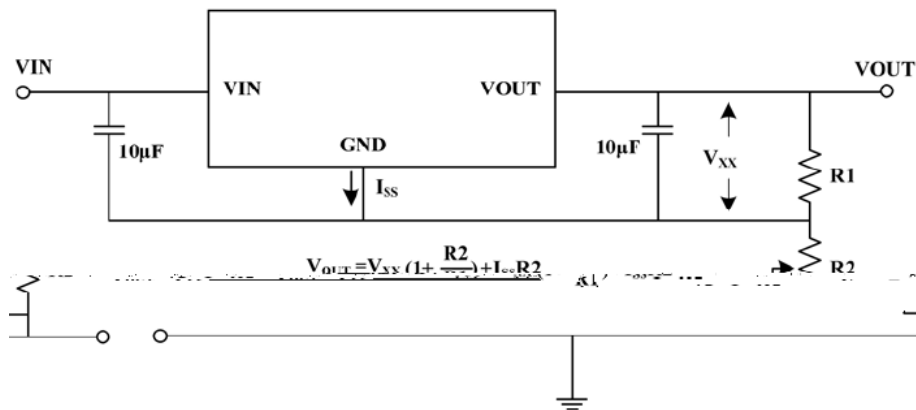


↑ / Short-Circuit Protection

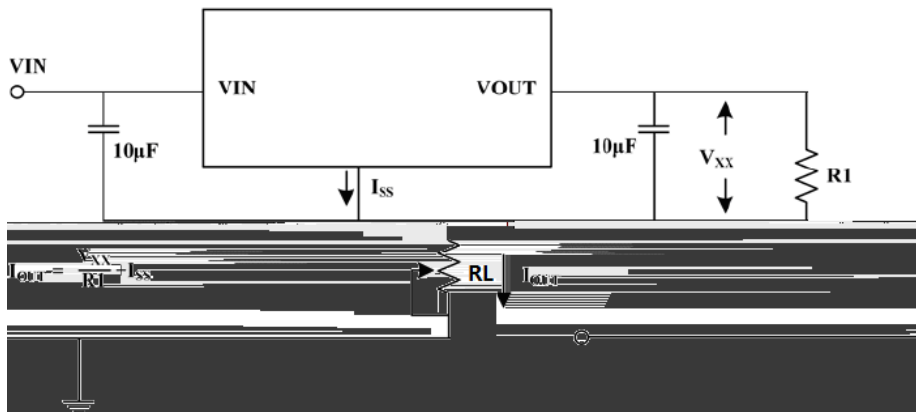


/ Typical Application Circuit

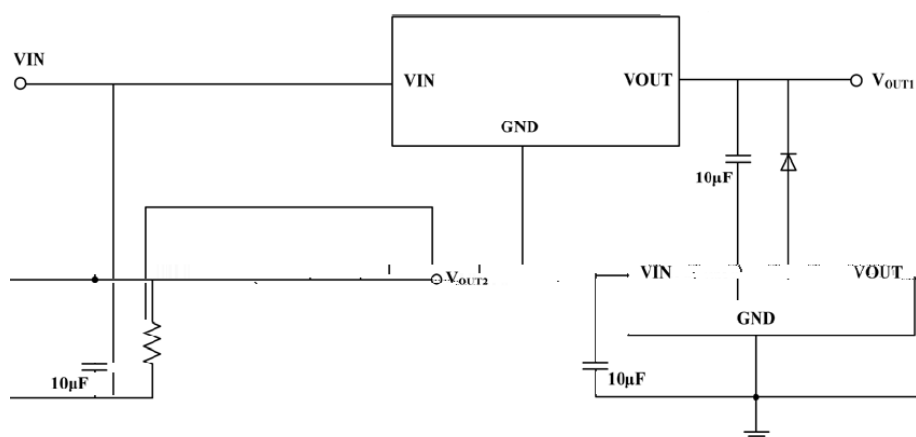
/ Circuit for Increasing Output Voltage



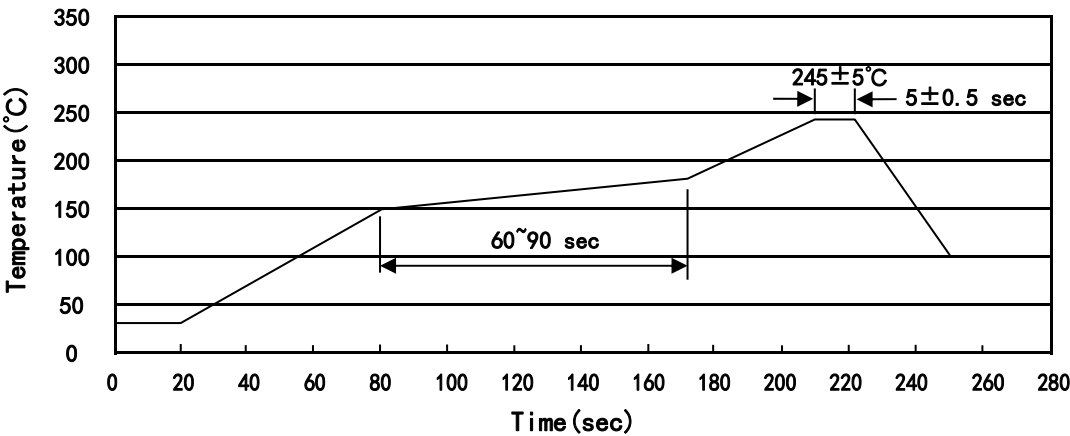
/ Constant Current Regulator



/ Double Output Circuit



() / 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