

SOT-89-3L Three Terminal Regulator 三端稳压 IC

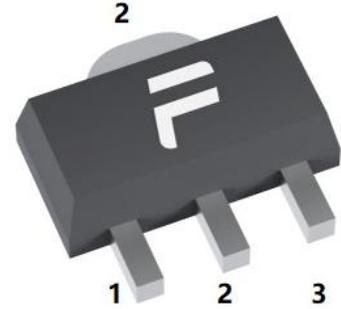
■ Features 特点

Pin 脚位: 1.Output 输出 2.Ground 地 3.Input 输入

Output Voltage 输出电压: 12V

Output Current 输出电流: 0.1A

Power dissipation 耗散功率: 0.5W



■ Absolute Maximum Ratings 最大额定值

( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Input Voltage 输入电压	$V_i$	35	V
Operating Current 工作电流	$I_o$	100	mA
Power dissipation 耗散功率	$P_D$	600	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	200	$^{\circ}\text{C}/\text{W}$
Solder Temperature 焊接温度/时间	$T_d$	260	$^{\circ}\text{C}$
Solder Temperature/Time 焊接时间	$T_d$	10	S
Operating Ambient Temperature 工作温度	$T_A$	-20~+120	$^{\circ}\text{C}$
Junction and Storage Temperature 结温和储藏温度	$T_J, T_{stg}$	125, -55to+150	$^{\circ}\text{C}$

■ Device Marking 产品字标

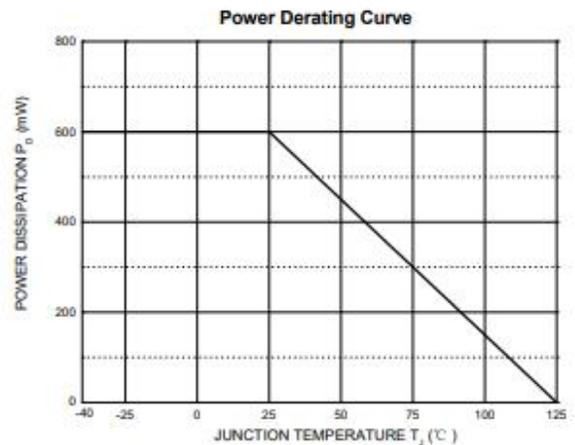
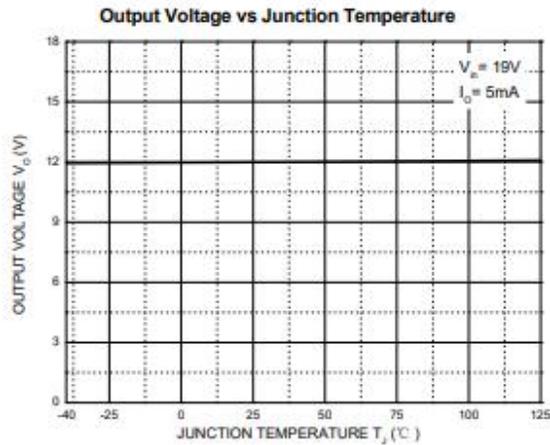
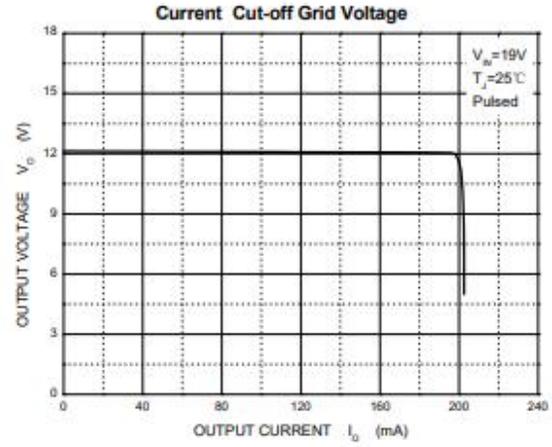
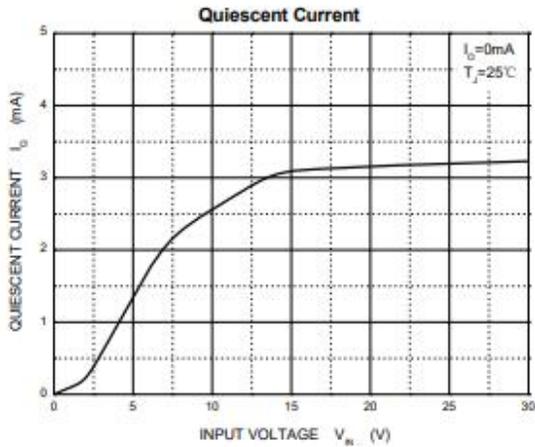
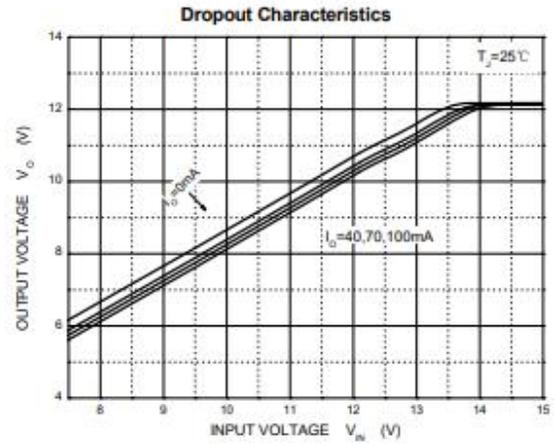
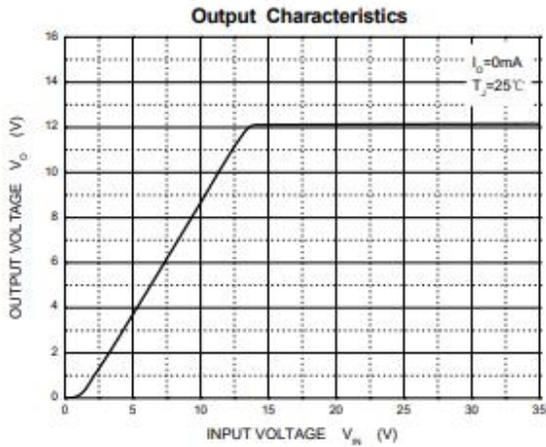
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■ Electrical Characteristics 电特性

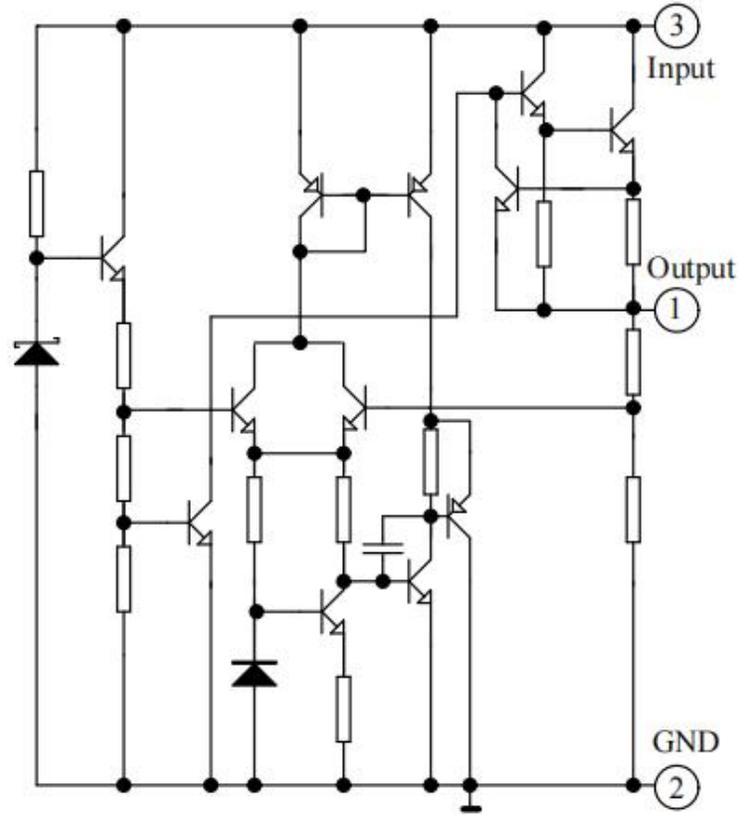
( $V_I=19V$   $I_O=40mA$   $C_i=0.33\mu F$   $C_o=0.1\mu F$   $T_A=25^\circ C$  unless otherwise noted 如无特殊说明 )

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	$V_O$	$V_I=19V$ $I_O=40mA$	11.5	12	12.5	V
Output Voltage 输出电压	$V_O$	$14V \leq V_I \leq 27V$ $1mA \leq I_O \leq 40mA$	11.4	12	12.6	V
Output Voltage 输出电压	$V_O$	$14V \leq V_I \leq 27V$ $1mA \leq I_O \leq 70mA$	11.4	12	12.6	V
Output Current 输出电流	$I_O$	$V_I=19V$		100		mA
Dropout Voltage 落差电压	$V_D$	$I_O=40mA$		1.7		V
Quiescent Current 静态电流	$I_q$	$V_I=19V$ $I_O=0$		4.3	6.5	mA
Quiescent Current Change 静态电流变化	$\Delta I_q$	$16V \leq V_I \leq 27V$			1.5	mA
Quiescent Current Change 静态电流变化	$\Delta I_q$	$1mA \leq I_O \leq 40mA$			0.1	mA
Line Regulation 线性调整	$\Delta V_O$	$I_O=40mA$ $14.5V \leq V_I \leq 27V$		55	250	mV
Line Regulation 线性调整	$\Delta V_O$	$I_O=40mA$ $16V \leq V_I \leq 27V$		49	200	mV
Load Regulation 负载调整	$\Delta V_O$	$1mA \leq I_O \leq 100mA$ $V_I=19V$		22	100	mV
Load Regulation 负载调整	$\Delta V_O$	$1mA \leq I_O \leq 40mA$ $V_I=19V$		13	50	mV
Temperature Coefficient of $V_O$ 输出电压温度系数	$\Delta V_O / \Delta T$	$I_O=5mA$		-1.0		mV/ $^\circ C$
Output Noise Voltage 噪声电压	$V_N$	$10Hz \leq f \leq 100kHz$		70		$\mu V$
Ripple Rejection 纹波抑制	RR	$15V \leq V_I \leq 25V$ $f=120Hz$	37	42		dB

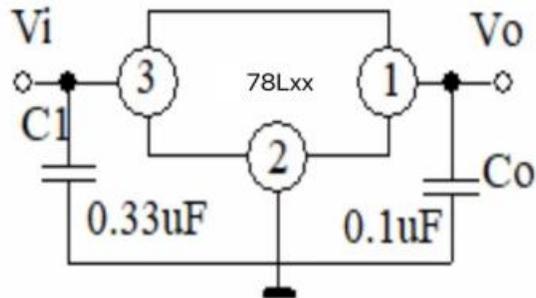
■ Typical Characteristic Curve 典型特性曲线



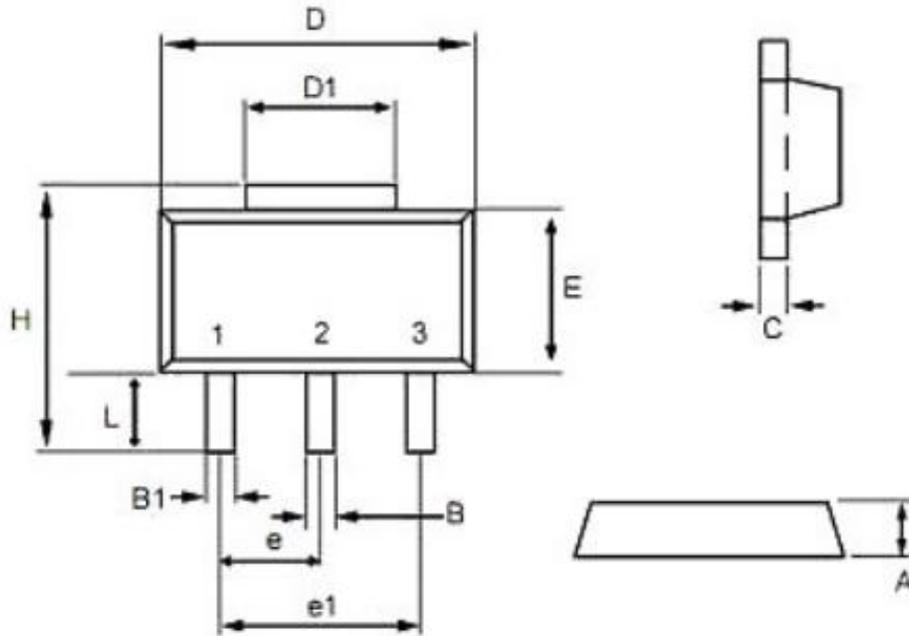
■ Equivalent Circuit 等效电路



■ Application Circuit 应用电路



■ 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