

SOT-89 Three Terminal Regulator 三端稳压 IC

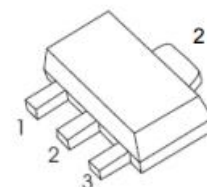
■Features 特点

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

Output Voltage 输出电压: -5V

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°C)

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Input Voltage 输入电压	V_i	-30	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	$R_{\theta JA}$	208	$^{\circ}\text{C}/\text{W}$
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	0~+150	$^{\circ}\text{C}$
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	-55to+150 $^{\circ}\text{C}$	

■Device Marking 产品字标

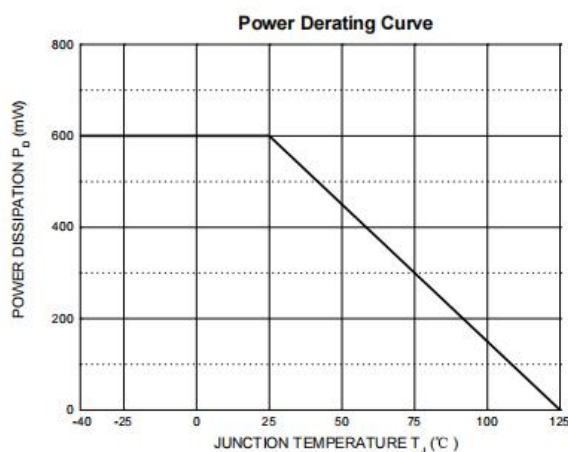
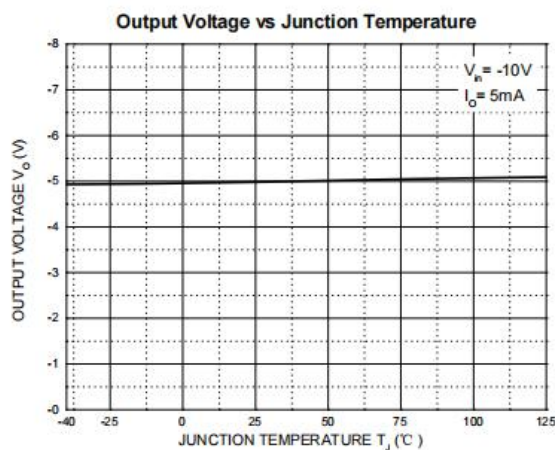
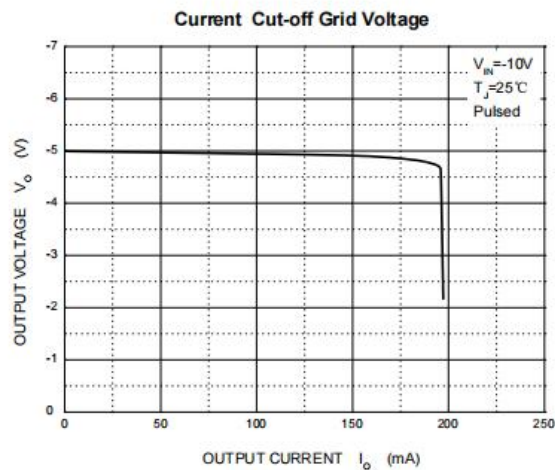
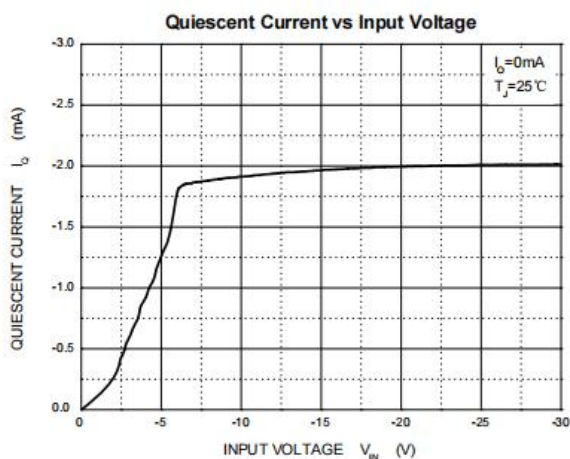
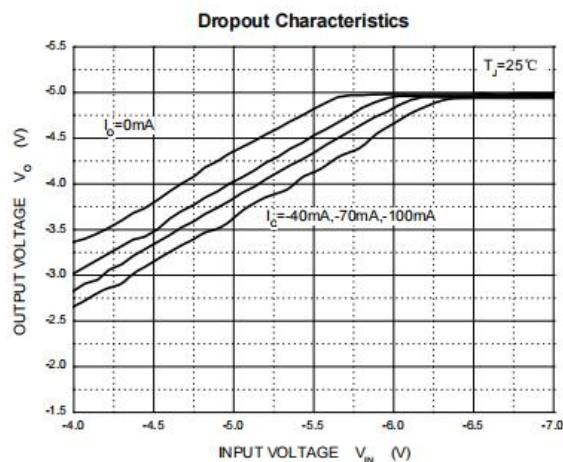
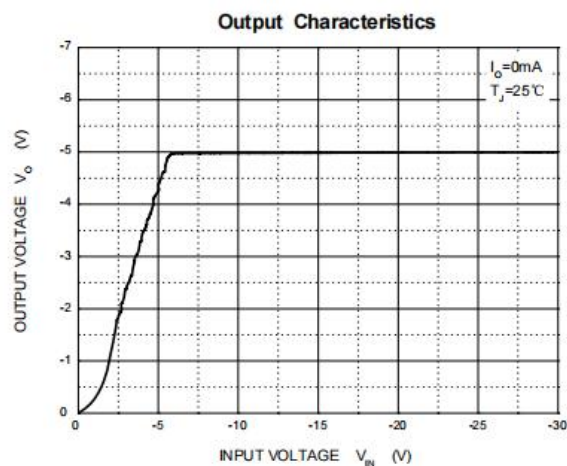
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■Electrical Characteristics 电特性

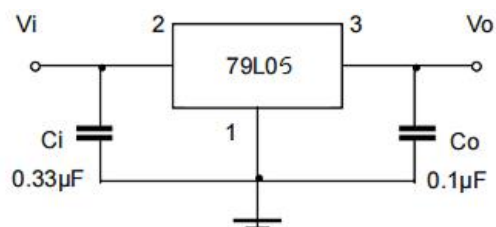
($V_i = -10V$ $I_o = 40mA$ $C_i = 0.33\mu F$ $C_o = 0.1\mu F$ $T_A = 25^\circ C$ unless otherwise noted 如无特殊说明)

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	$V_i = -10V$ $25^\circ C$ $I_o = 40mA$	-4.85	-5	-5.15	V
Output Voltage 输出电压	V_o	$-7V \leq V_i \leq -20V$ $1mA \leq I_o \leq 40mA$ $0 \sim 125^\circ C$	-4.75	-5	-5.25	V
Output Voltage 输出电压	V_o	$V_i = -10V$ $1mA \leq I_o \leq 70mA$ $0 \sim 125^\circ C$	-4.75	-5	-5.25	V
Dropout Voltage 落差电压	V_D	$I_o = 40mA$ $25^\circ C$		-1.7		V
Quiescent Current 静态电流	I_q	$V_i = -10V$ $I_o = 0$ $25^\circ C$		2	6	mA
Quiescent Current Change 静态电流变化	ΔI_q	$-8V \leq V_i \leq -20V$ $0 \sim 125^\circ C$			1.5	mA
Quiescent Current Change 静态电流变化	ΔI_q	$1mA \leq I_o \leq 40mA$ $0 \sim 125^\circ C$			0.1	mA
Line Regulation 线性调整	ΔV_o	$I_o = 40mA$ $25^\circ C$ $-7V \leq V_i \leq -20V$		15	150	mV
Line Regulation 线性调整	ΔV_o	$I_o = 40mA$ $25^\circ C$ $-8V \leq V_i \leq -20V$		12	100	mV
Load Regulation 负载调整	ΔV_o	$1mA \leq I_o \leq 100mA$ $V_i = -10V$ $25^\circ C$		20	60	mV
Load Regulation 负载调整	ΔV_o	$1mA \leq I_o \leq 40mA$ $V_i = -10V$ $25^\circ C$		10	30	mV
Output Noise Voltage 噪声电压	V_N	$10Hz \leq f \leq 100kHz$ $25^\circ C$		40		$\mu V/V_o$
Ripple Rejection 纹波抑制	RR	$-8V \leq V_i \leq -18V$ $f = 120Hz$ $0 \sim 125^\circ C$	41	49		dB

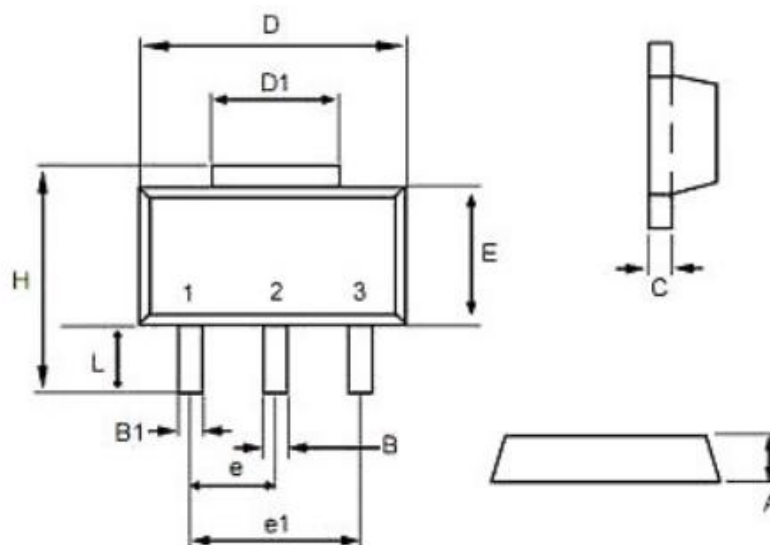
■ Typical Characteristic Curve 典型特性曲线



■ Typical Application 典型应用



■ SOT-89 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