



1.2A 三端正电源稳压电路 GS7805

概述：

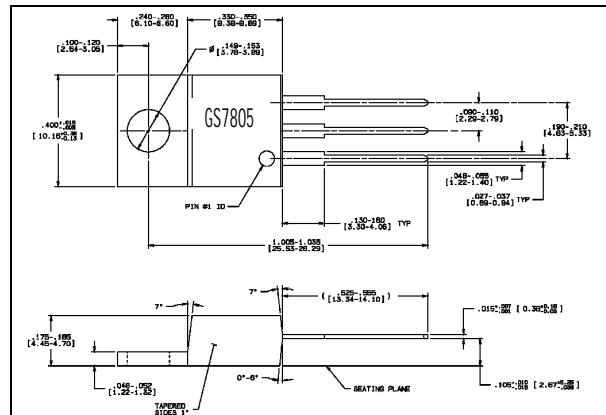
GS7805是一块三端正电源稳压集成电路。该电路内置短路保护及热保护电路，具有输出电压固定的特点，广泛应用于各种电视机、收录机、电子仪器等设备中作电源稳压用。

GS7805采用三引线带散热片塑料TO-220的封装形式封装。

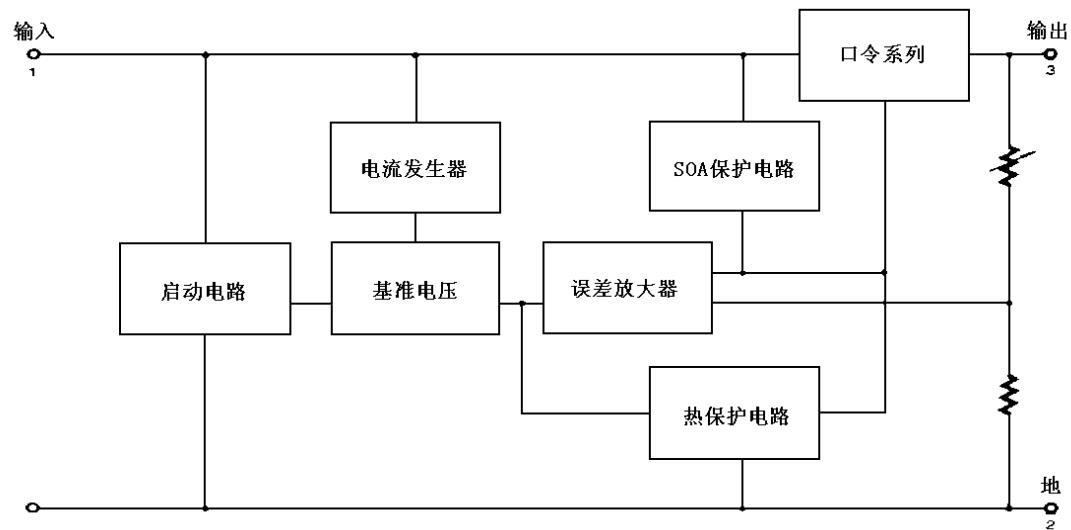
主要特点：

- 固定输出电压：5V
- 内置短路保护电路
- 内置热保护电路
- 输出晶体管安全工作区保护电路

封装外形图：



功能框图：





极限值： (Ta=25°C)

参数名称	符号	数值	单位
输入电压	Vi	35	V
热阻	R _{JC}	5	°C/W
	R _{JA}	65	°C/W
工作范围	T _{OPR}	0~+125	°C
贮存温度范围	T _{STG}	-65~+150	°C

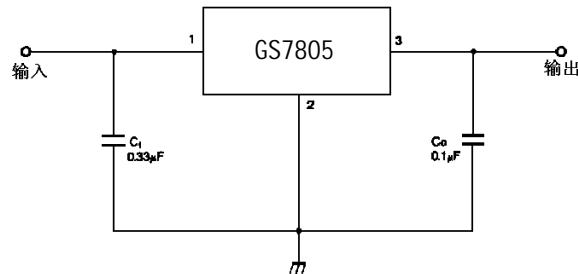
电特性：

(若无其它规定 : 0°C < T_J < 125°C , Vi=10V,Ci=0.33μF,Co=0.1μF)

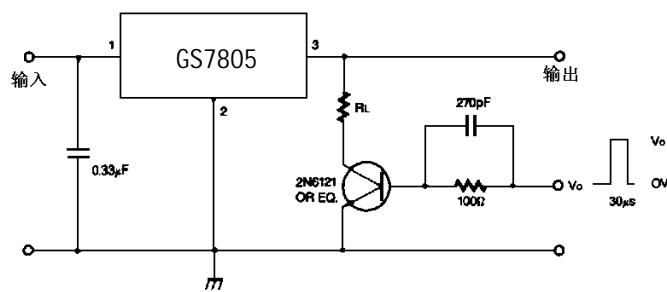
参数名称	符号	测试条件		最小	典型	最大	单位
输出电压	Vo	T _J =+25°C		4.8	5.0	5.2	V
		5.0mA	Io 1.0A, Po 15W	4.75	5.0	5.25	
线性调整率*	Regline	T _J =+25°C	Vi=7V to 25V Io=500mA		4.0	50	mV
			Vi=8V to 12V Io=1.2A		1.6	25	
负载调整率*	Regload	T _J =+25°C	Io=5.0mA to 1.5A		9	50	mV
			Io=250mA to 750mA		4	25	
静态电流	I _Q	T _J =+25°C			5.0	8.0	mA
静态电流改变	I _Q		Io=5.0mA to 1.0A		0.03	0.5	mA
			Vi=7V to 25V		0.3	1.0	
输出电压漂移	Vo / T	Io=5.0mA			-0.8		mV/°C
输出噪声电压	V _N	f=10Hz 至 100KHz, T _A =+25°C			42		μV/Vo
纹波抑制	RR	f=120Hz Vi=8V to 18V		62	73		dB
漏电压	V _{Drop}	Io=1.2A, T _J =+25°C			2		V
输出电阻	rO	f=1KHz			15		m
短路电流	I _{SC}	Vi=35V, T _J =+25°C			230		mA
峰值电流	I _{PK}	T _J =+25°C			2.2		A



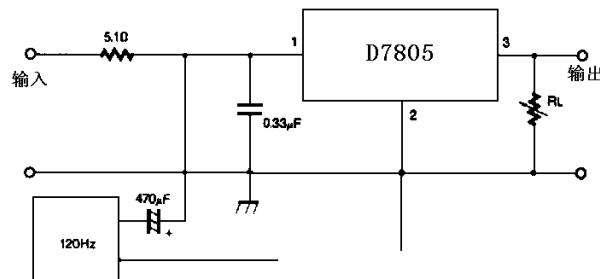
应用图：



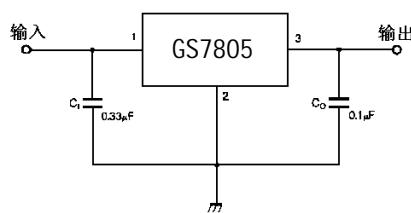
直流参数



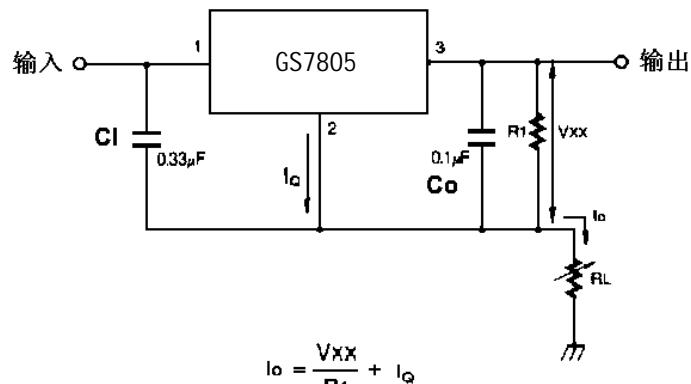
负载调整



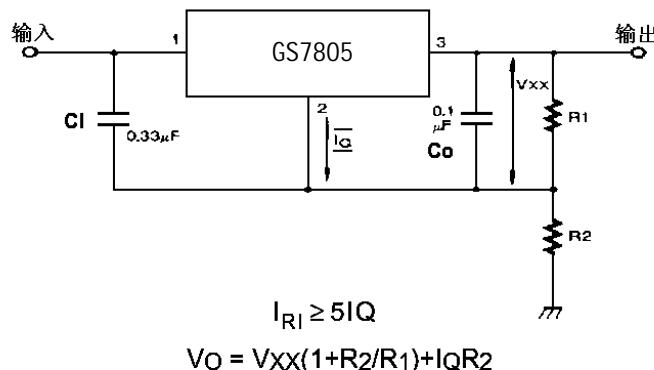
纹波抑制



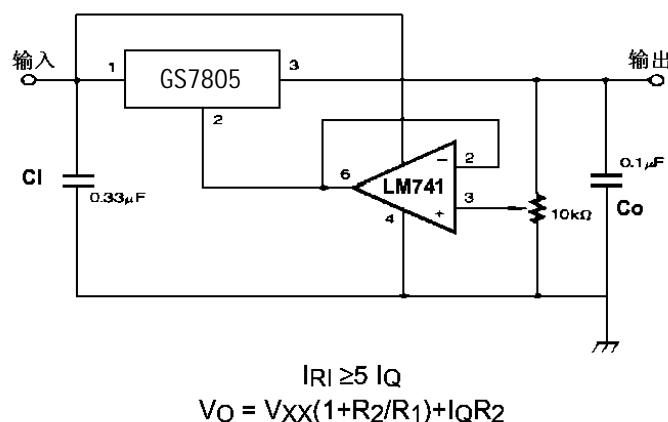
固定输出调整



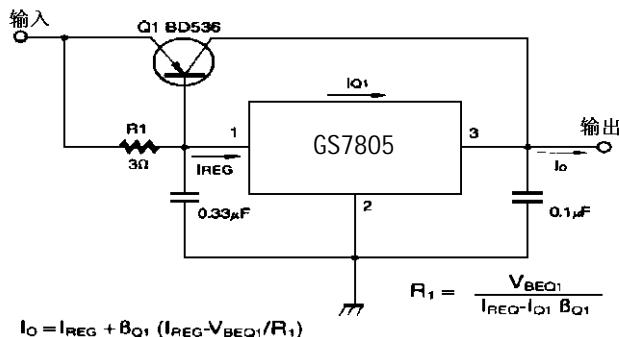
恒流调整



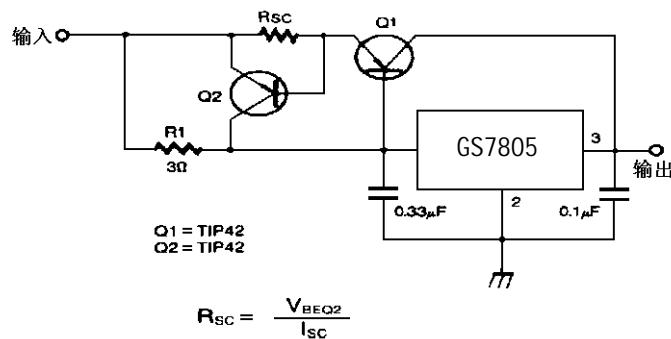
输出电压升高电路



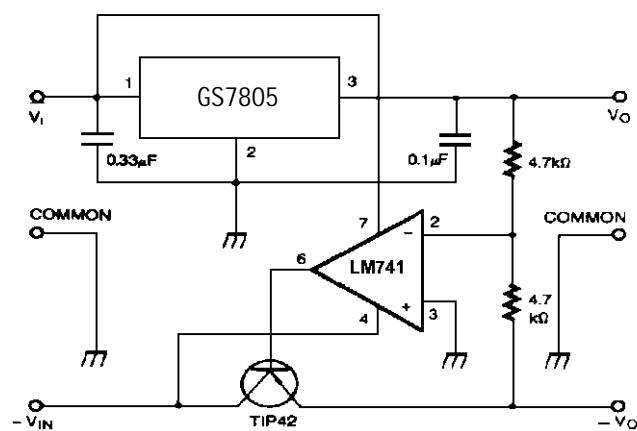
输出电压调整 (7 to 30V)



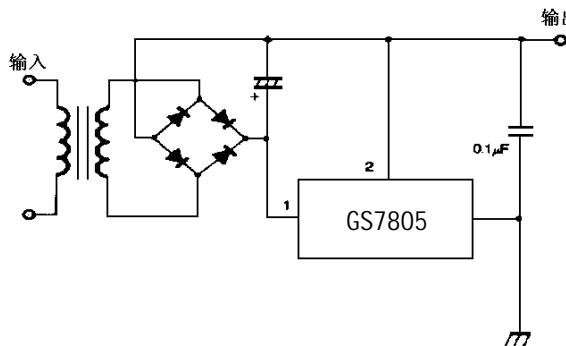
高电流电压调整



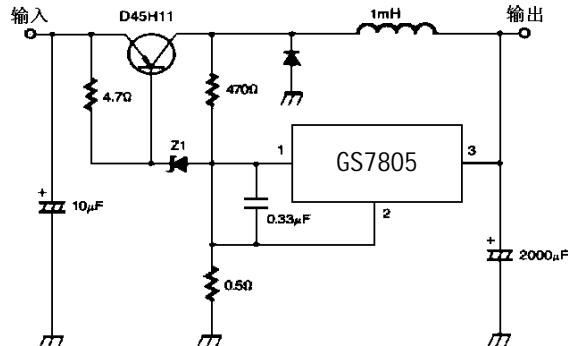
短路保护高输出电流



跟踪电压调整

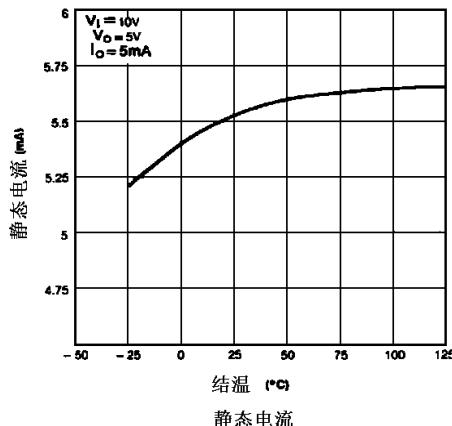


负输出电压电路

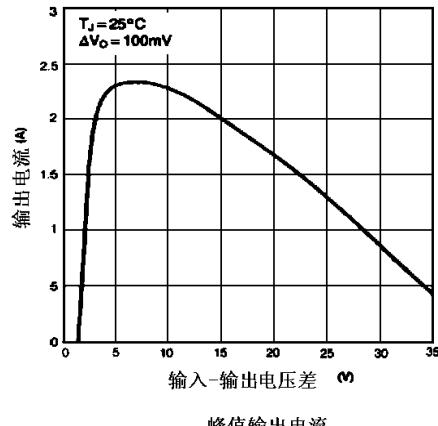


开关调整

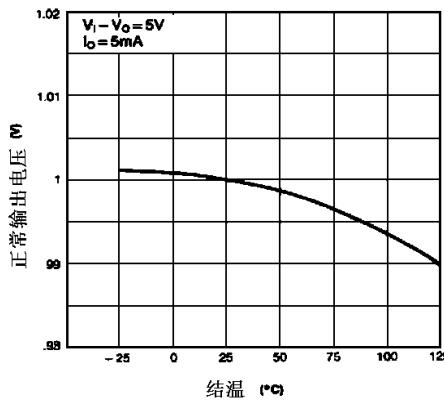
特性曲线：



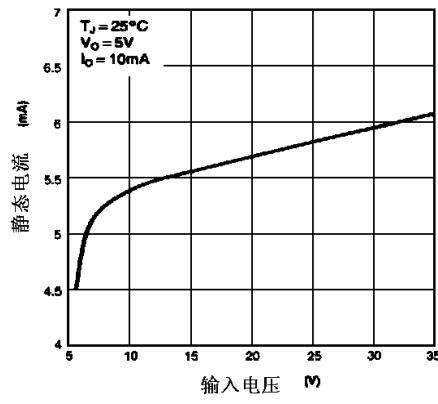
静态电流



峰值输出电流



输出电压



静态电流