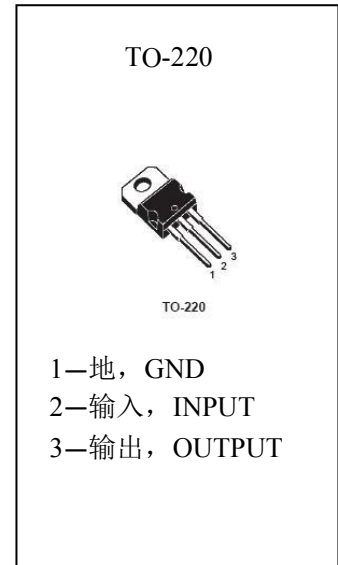


■ 概述

L7905系列为3端负稳压电路,TO-220封装,输出电压是5V,应用范围广。

■ 外形图及引脚排列



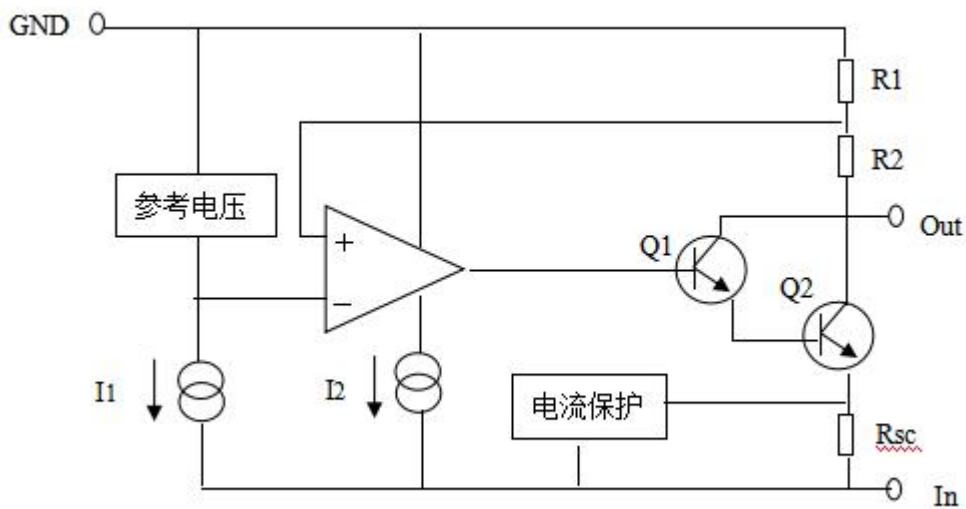
■ 主要特点

- 输出电流可达 1.5A, 输出电压有: -5V
- 过热保护
- 短路保护
- 输出晶体管SA补偿。

■ 极限值 ($T_a=25^{\circ}\text{C}$)

V_I	— 输入电压	-3.5 V
T_{OPR}	— 工作结温范围	0~125 $^{\circ}\text{C}$
T_{STG}	— 贮存温度范围	-65~150 $^{\circ}\text{C}$

■ 功能框图



(参见测试电路, 除非另有说明, $0^{\circ}\text{C} \leq T_J \leq 125^{\circ}\text{C}$, $I_o=500\text{mA}$, $V_i=10\text{V}$, $C_i=2.2\mu\text{F}$, $C_o=0.1\mu\text{F}$)

参数符号	符号说明	最小值	典型值	最大值	单位	测试条件
V_o	输出电压	-4.8	-5.0	-5.2	V	$T_J=25^{\circ}\text{C}$ $I_o=5.0\text{mA to }1.0\text{A}$, $P_o \leq 15\text{W}$, $V_i=-7\text{V to }-20\text{V}$
		-4.75	-5.0	-5.25		
ΔV_o	电压调整率*		5	50	mV	$T_J=25^{\circ}\text{C}$, $V_i=-7\text{V to }-20\text{V}$, $I_o=1\text{A}$
			2	25		$T_J=25^{\circ}\text{C}$, $V_i=-8\text{V to }-12\text{V}$, $I_o=1\text{A}$
			7	50		$V_{IN}=-7.5\text{V to }-25\text{V}$,
			7	50		$V_{IN}=-8\text{V to }-12\text{V}$, $I_o=1\text{A}$
ΔV_o	负载调整率*		10	100	mV	$I_o=5.0\text{mA to }1.5\text{A}$
			3	50		$T_J=25^{\circ}\text{C}$, $I_o=250\text{mA to }750\text{mA}$
I_q	静态电流		3	6	mA	$T_J=25^{\circ}\text{C}$
ΔI_q	静态电流变化率		0.05	0.5	mA	$I_o=5\text{mA to }1.0\text{A}$
			0.1	0.8		$V_i=-8\text{V to }-25\text{V}$
$\Delta V_o/\Delta T$	输出电压温度系数		-0.4		mV/ $^{\circ}\text{C}$	$I_o=5\text{mA}$
V_N	输出噪声电压		40		μV	$T_A=25^{\circ}\text{C}$, $f=10\text{Hz to }100\text{KHz}$
RR	纹波抑制比	54	60		dB	$f=120\text{Hz}$, $\Delta V_i=10\text{V}$, $I_o=-35\text{A}$
V_D	下降电压		2		V	$T_J=25^{\circ}\text{C}$, $I_o=1\text{A}$
I_{SC}	短路电流		300		mA	$T_J=25^{\circ}\text{C}$, $V_i=-35\text{V}$
I_{PK}	峰值电流		2.2		A	$T_J=25^{\circ}\text{C}$

典型特性曲线

图1 输出电压

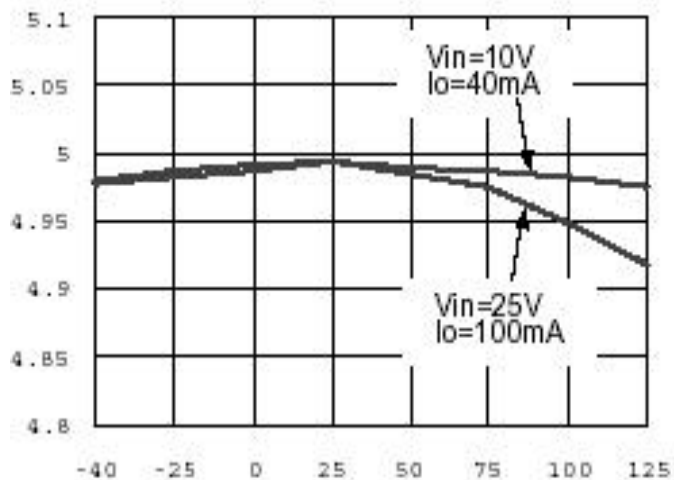


图2 负载调节

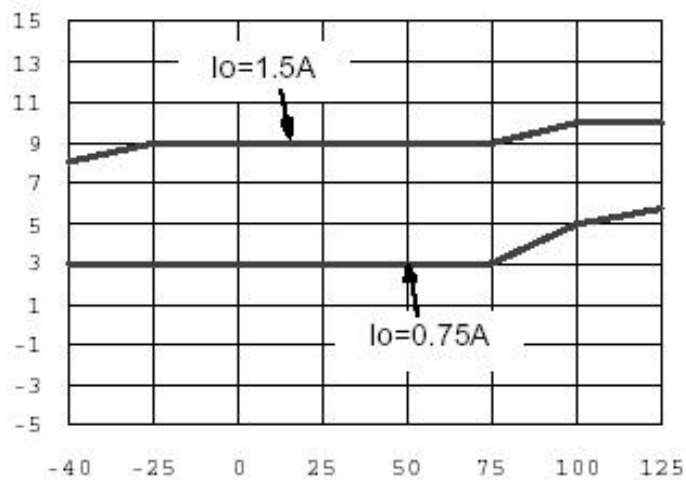


图3 静态电流

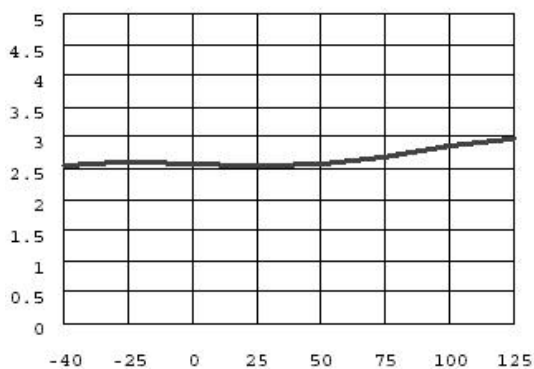


图4 下降电压

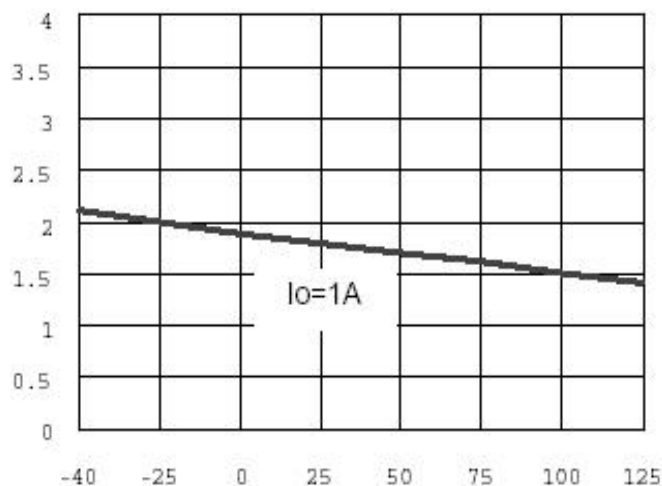
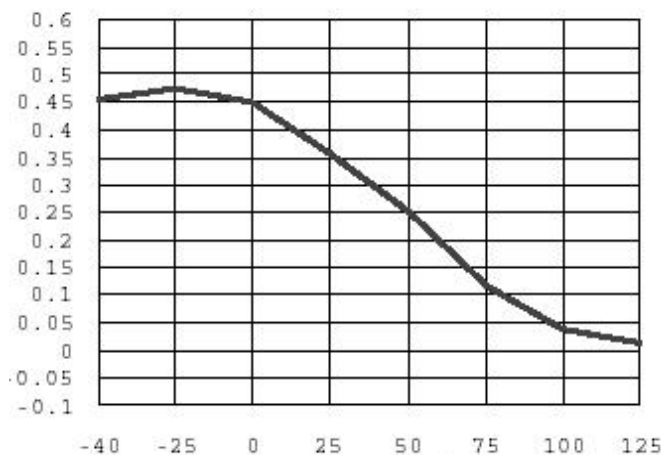


图5 短路电流





NOTE:

1. Exceeding the maximum ratings of the device in performance may cause damage to the device, even the permanent failure, which may affect the dependability of the machine. Please do not exceed the absolute maximum ratings of the device when circuit designing.
2. When installing the heat sink, please pay attention to the torsional moment and the smoothness of the heat sink.
3. MOSFETs is the device which is sensitive to the static electricity, it is necessary to protect the device from being damaged by the static electricity when using it.
4. Shenzhen Minos reserves the right to make changes in this specification sheet and is subject to change without prior notice.

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