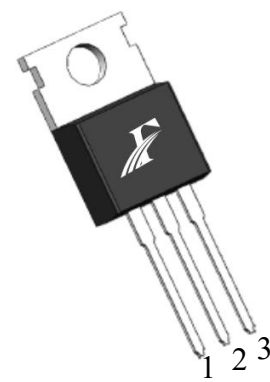


产品特性 Features

输出电压 Output Voltage	稳压管 Regulators
-5V	FHP7905B
-6V	FHP7906B
-8V	FHP7908B
-9V	FHP7909B
-10V	FHP7910B
-12V	FHP7912B
-15V	FHP7915B
最大输出电流 Max Output Current	1.5A
过载保护 Internal thermal overload protection	
短路电流限制 Internal short-current limiting	
输出端最大安全工作区域 Output transistor safe-area compensation	
输出电压精度在 4%以内 Output voltage offered in 4% tolerance	

封装形式 Package



1:GND 2:Input 3:Output

功能图 Functional diagram

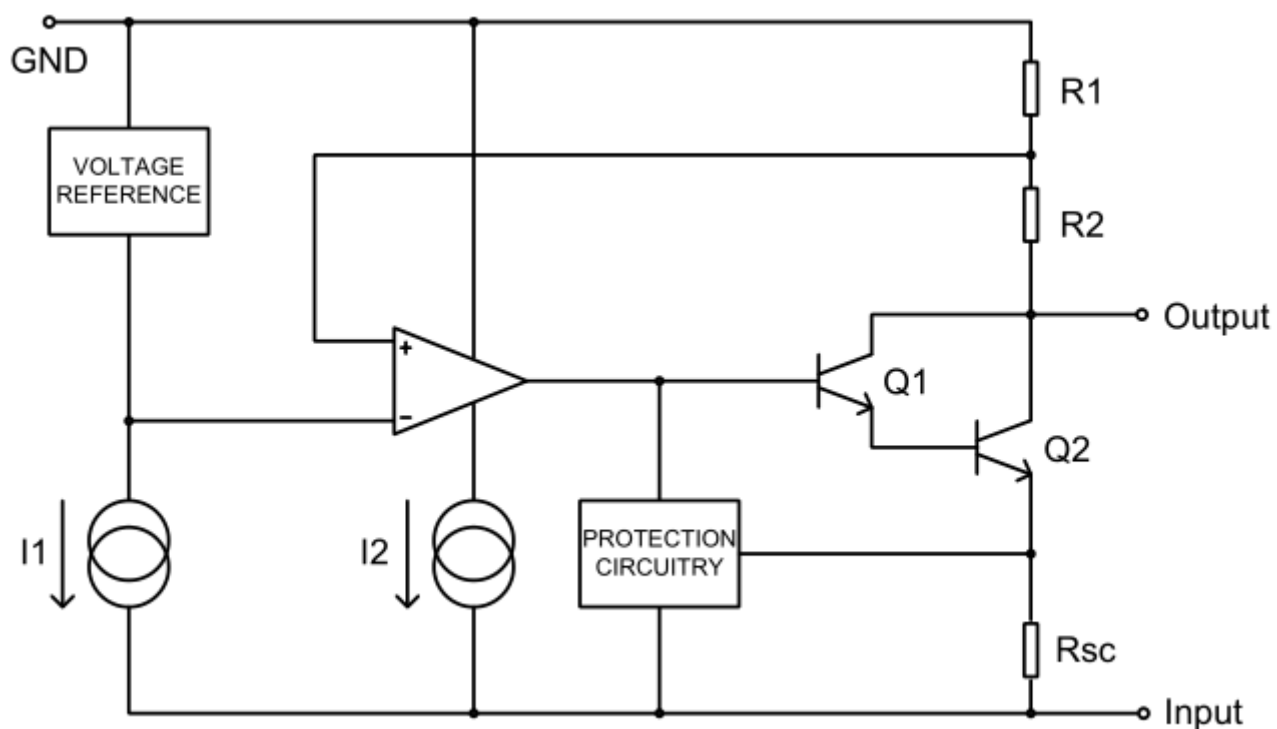


Fig.1

典型应用电路 Typical application circuit

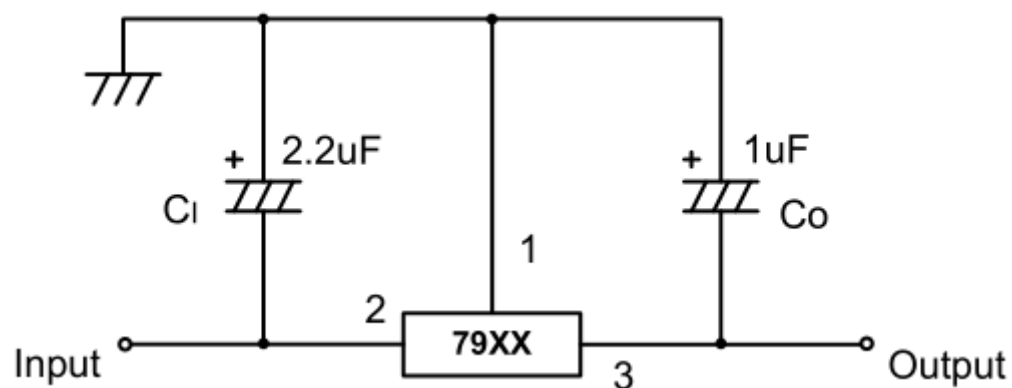


Fig.2

绝对最大额定值 Absolute Maximum Rating (Ta = 25°C unless otherwise noted)

项目 Parameter	符号 Symbol	数值 Value	单位 Unit
输入电压 Input Voltage	Vin	-35	V
功率损耗 Power Dissipation	P _D	Internal Limited	W
结温 Junction Temperature	T _j	0~+125	°C
存储温度 Storage Temperature Range	T _{STG}	-65~+150	°C
结-壳的热阻 Thermal Resistance -Junction to Case	R _{θJC}	5	°C/W
结-环境的热阻 Thermal Resistance -Junction to Ambient	R _{θJA}	65	°C/W

FHP7905B电参数特性 Electrical Characteristics

(Vin = -10V, Iout = 500mA, 0°C ≤ Tj ≤ 125°C, Cin = 2.2μF, Cout = 1μF; unless otherwise specified.)

项目 Parameter	符号 Symbol	测试条件 Test Condition	最小 Min	典型 Typ	最大 Max	单位 Unit	
输出电压 Output voltage	Vout	Tj = 25°C	-4.80	-5.0	-5.20	V	
		-7.0V ≤ Vin ≤ -20V, 5mA ≤ Iout ≤ 1A, PD ≤ 15W	-4.75	-5.0	-5.25		
线性调节 Line Regulation	REGline	Tj = 25°C	-7.0V ≤ Vin ≤ -25V	--	35	100	mV
			-8V ≤ Vin ≤ -12V	--	8	50	
负载调节 Load Regulation	REGload	Tj = 25°C	5mA ≤ Iout ≤ 1.5A	--	10	100	mV
			250mA ≤ Iout ≤ 750mA	--	3	50	
静态电流 Quiescent Current	Iq	Iout = 0, Tj = 25°C	--	3	6	mA	
静态电流变化 Quiescent Current Change	ΔIq	-8.0V ≤ Vin ≤ -25V	--	0.1	0.8		
		5mA ≤ Iout ≤ 1A	--	0.05	0.5		
输出电压纹波 Output Noise Voltage	Vn	10Hz ≤ f ≤ 100KHz, Tj = 25°C	--	40	--	μV	
浪涌衰减 Ripple Rejection Ratio	RR	f = 120Hz, ΔVi = 10V	54	60	--	dB	
衰减电压 Voltage Drop	Vdrop	Iout = 1A, Tj = 25°C	--	2	--	V	
短路电流 Output Short Circuit Current	Isc	Vin = -35V, Tj = 25°C	--	10	--	mA	
峰值电流 Peak Output Current	I _{o peak}	Tj = 25°C	--	2.2	--	A	
输出电压特性 Temperature Coefficient of Output Voltage	ΔVout / ΔTj	Iout = 5mA, 0°C ≤ Tj ≤ 125°C	--	0.5	--	mV / °C	

FHP7906B电参数特性 Electrical Characteristics

($V_{in} = -11V$, $I_{out} = 500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{in} = 2.2\mu F$, $C_{out} = 1\mu F$; unless otherwise specified.)

项目 Parameter	符号 Symbol	测试条件 Test Condition	最小 Min	典型 Typ	最大 Max	单位 Unit	
输出电压 Output voltage	Vout	Tj=25°C	-5.75	-6	-6.25	V	
		-9V≤Vin≤-21V, 5mA≤Iout≤1A, PD≤15W	-5.7	-6	-6.3		
线性调节 Line Regulation	REGline	Tj=25°C	-8V≤Vin≤-25V	--	10	120	mV
			-9V≤Vin≤-13V	--	5	60	
负载调节 Load Regulation	REGload	Tj=25°C	5mA≤Iout≤1.5A	--	10	120	
			250mA≤Iout≤750mA	--	3	60	
静态电流 Quiescent Current	Iq	Iout=0, Tj=25°C	--	3	6	mA	
静态电流变化 Quiescent Current Change	ΔIq	-8V≤Vin≤-25V	--	0.1	1		
		5mA≤Iout≤1A	--	0.05	0.5		
输出电压纹波 Output Noise Voltage	Vn	10Hz≤f≤100KHz, Tj=25°C	--	130	--	μV	
浪涌衰减 Ripple Rejection Ratio	RR	f=120Hz, ΔVi=10V	54	60	--	dB	
衰减电压 Voltage Drop	Vdrop	Iout=1A, Tj=25°C	--	2	--	V	
短路电流 Output Short Circuit Current	Isc	Vin=-35V, Tj=25°C	--	10	--	mA	
峰值电流 Peak Output Current	Io peak	Tj=25°C	--	2.2	--	A	
输出电压特性 Temperature Coefficient of Output Voltage	ΔVout/ ΔTj	Iout=5mA, 0°C≤Tj≤125°C	--	0.6	--	mV/ °C	

FHP7908B电参数特性 Electrical Characteristics

($V_{in} = -14V$, $I_{out} = 500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{in} = 2.2\mu F$, $C_{out} = 1\mu F$; unless otherwise specified.)

项目 Parameter	符号 Symbol	测试条件 Test Condition	最小 Min	典型 Typ	最大 Max	单位 Unit	
输出电压 Output voltage	Vout	Tj=25°C	-7.7	-8	-8.3	V	
		-10V≤Vin≤-23V, 5mA≤Iout≤1A, PD≤15W	-7.6	-8	-8.4		
线性调节 Line Regulation	REGline	Tj=25°C	-10.5V≤Vin≤-25V	--	10	160	mV
			-11V≤Vin≤-17V	--	5	80	
负载调节 Load Regulation	REGload	Tj=25°C	5mA≤Iout≤1.5A	--	12	160	
			250mA≤Iout≤750mA	--	4	80	
静态电流 Quiescent Current	Iq	Iout=0, Tj=25°C	--	3	6	mA	
静态电流变化 Quiescent Current Change	ΔIq	-10.5V≤Vin≤-25V	--	0.1	1		
		5mA≤Iout≤1A	--	0.05	0.5		
输出电压纹波 Output Noise Voltage	Vn	10Hz≤f≤100KHz, Tj=25°C	--	175	--	μV	
浪涌衰减 Ripple Rejection Ratio	RR	f=120Hz, ΔVi=10V	54	60	--	dB	
衰减电压 Voltage Drop	Vdrop	Iout=1A, Tj=25°C	--	2	--	V	
短路电流 Output Short Circuit Current	Isc	Vin=-35V, Tj=25°C	--	10	--	mA	
峰值电流 Peak Output Current	Io peak	Tj=25°C	--	2.2	--	A	
输出电压特性 Temperature Coefficient of Output Voltage	ΔVout/ ΔTj	Iout=5mA, 0°C≤Tj≤125°C	--	0.8	--	mV/ °C	

FHP7909B电参数特性 Electrical Characteristics

($V_{in} = -15V$, $I_{out} = 500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{in} = 2.2\mu F$, $C_{out} = 1\mu F$; unless otherwise specified.)

项目 Parameter	符号 Symbol	测试条件 Test Condition	最小 Min	典型 Typ	最大 Max	单位 Unit	
输出电压 Output voltage	Vout	$T_j = 25^{\circ}C$	-8.7	-9.0	-9.3	V	
		$-7V \leq V_{in} \leq -20V$, $5mA \leq I_{out} \leq 1A$, $PD \leq 15W$	-8.6	-9.0	-9.4		
线性调节 Line Regulation	REGline	$T_j = 25^{\circ}C$	$-11.5V \leq V_{in} \leq -26V$	--	10	180	mV
			$-12V \leq V_{in} \leq -18V$	--	5	90	
负载调节 Load Regulation	REGload	$T_j = 25^{\circ}C$	$5mA \leq I_{out} \leq 1.5A$	--	12	180	mV
			$250mA \leq I_{out} \leq 750mA$	--	4	90	
静态电流 Quiescent Current	Iq	$I_{out} = 0$, $T_j = 25^{\circ}C$	--	3	6	mA	
静态电流变化 Quiescent Current Change	ΔIq	$-11.5V \leq V_{in} \leq -26V$	--	0.1	1		
		$5mA \leq I_{out} \leq 1A$	--	0.05	0.5		
输出电压纹波 Output Noise Voltage	Vn	$10Hz \leq f \leq 100KHz$, $T_j = 25^{\circ}C$	--	175	--	μV	
浪涌衰减 Ripple Rejection Ratio	RR	$f = 120Hz$, $\Delta V_i = 10V$	54	60	--	dB	
衰减电压 Voltage Drop	Vdrop	$I_{out} = 1A$, $T_j = 25^{\circ}C$	--	2	--	V	
短路电流 Output Short Circuit Current	Isc	$V_{in} = -35V$, $T_j = 25^{\circ}C$	--	10	--	mA	
峰值电流 Peak Output Current	I _{o peak}	$T_j = 25^{\circ}C$	--	2.2	--	A	
输出电压特性 Temperature Coefficient of Output Voltage	$\Delta V_{out} / \Delta T_j$	$I_{out} = 5mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$	--	0.9	--	mV/ $^{\circ}C$	

FHP7910B电参数特性 Electrical Characteristics

($V_{in} = -17V$, $I_{out} = 500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{in} = 2.2\mu F$, $C_{out} = 1\mu F$; unless otherwise specified.)

项目 Parameter	符号 Symbol	测试条件 Test Condition	最小 Min	典型 Typ	最大 Max	单位 Unit	
输出电压 Output voltage	Vout	$T_j = 25^{\circ}C$	-9.6	-10	-10.4	V	
		$-10V \leq V_{in} \leq -23V$, $5mA \leq I_{out} \leq 1A$, $PD \leq 15W$	-9.5	-10	-10.5		
线性调节 Line Regulation	REGline	$T_j = 25^{\circ}C$	$-12.5V \leq V_{in} \leq -28V$	--	12	200	mV
			$-14V \leq V_{in} \leq -20V$	--	6	100	
负载调节 Load Regulation	REGload	$T_j = 25^{\circ}C$	$5mA \leq I_{out} \leq 1.5A$	--	12	200	mV
			$250mA \leq I_{out} \leq 750mA$	--	4	100	
静态电流 Quiescent Current	Iq	$I_{out} = 0$, $T_j = 25^{\circ}C$	--	3	6	mA	
静态电流变化 Quiescent Current Change	ΔIq	$-12.5V \leq V_{in} \leq -28V$	--	0.1	1		
		$5mA \leq I_{out} \leq 1A$	--	0.05	0.5		
输出电压纹波 Output Noise Voltage	Vn	$10Hz \leq f \leq 100KHz$, $T_j = 25^{\circ}C$	--	280	--	μV	
浪涌衰减 Ripple Rejection Ratio	RR	$f = 120Hz$, $\Delta V_i = 10V$	54	60	--	dB	
衰减电压 Voltage Drop	Vdrop	$I_{out} = 1A$, $T_j = 25^{\circ}C$	--	2	--	V	
短路电流 Output Short Circuit Current	Isc	$V_{in} = -35V$, $T_j = 25^{\circ}C$	--	10	--	mA	
峰值电流 Peak Output Current	I _{o peak}	$T_j = 25^{\circ}C$	--	2.2	--	A	
输出电压特性 Temperature Coefficient of Output Voltage	$\Delta V_{out} / \Delta T_j$	$I_{out} = 5mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$	--	1.0	--	mV/ $^{\circ}C$	

FHP7912B电参数特性 Electrical Characteristics

($V_{in} = -19V$, $I_{out} = 500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{in} = 2.2\mu F$, $C_{out} = 1\mu F$; unless otherwise specified.)

项目 Parameter	符号 Symbol	测试条件 Test Condition	最小 Min	典型 Typ	最大 Max	单位 Unit	
输出电压 Output voltage	Vout	$T_j = 25^{\circ}C$	-11.5	-12	-12.5	V	
		$-7V \leq V_{in} \leq -20V$, $5mA \leq I_{out} \leq 1A$, $PD \leq 15W$	-11.4	-12	-12.6		
线性调节 Line Regulation	REGline	$T_j = 25^{\circ}C$	$-14.5V \leq V_{in} \leq -30V$	--	12	240	mV
			$-16V \leq V_{in} \leq -22V$	--	6	120	
负载调节 Load Regulation	REGload	$T_j = 25^{\circ}C$	$5mA \leq I_{out} \leq 1.5A$	--	12	240	mV
			$250mA \leq I_{out} \leq 750mA$	--	4	120	
静态电流 Quiescent Current	Iq	$I_{out} = 0$, $T_j = 25^{\circ}C$	--	3	6	mA	
静态电流变化 Quiescent Current Change	ΔIq	$-14.5V \leq V_{in} \leq -30V$	--	0.1	1		
		$5mA \leq I_{out} \leq 1A$	--	0.05	0.5		
输出电压纹波 Output Noise Voltage	Vn	$10Hz \leq f \leq 100KHz$, $T_j = 25^{\circ}C$	--	200	--	μV	
浪涌衰减 Ripple Rejection Ratio	RR	$f = 120Hz$, $\Delta V_i = 10V$	54	60	--	dB	
衰减电压 Voltage Drop	Vdrop	$I_{out} = 1A$, $T_j = 25^{\circ}C$	--	2	--	V	
短路电流 Output Short Circuit Current	Isc	$V_{in} = -35V$, $T_j = 25^{\circ}C$	--	10	--	mA	
峰值电流 Peak Output Current	I _{o peak}	$T_j = 25^{\circ}C$	--	2.2	--	A	
输出电压特性 Temperature Coefficient of Output Voltage	$\Delta V_{out} / \Delta T_j$	$I_{out} = 5mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$	--	1.2	--	mV/ $^{\circ}C$	

FHP7915B电参数特性 Electrical Characteristics

($V_{in} = -23V$, $I_{out} = 500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$, $C_{in} = 2.2\mu F$, $C_{out} = 1\mu F$; unless otherwise specified.)

项目 Parameter	符号 Symbol	测试条件 Test Condition	最小 Min	典型 Typ	最大 Max	单位 Unit	
输出电压 Output voltage	Vout	$T_j = 25^{\circ}C$	-14.4	-15	-15.6	V	
		$-7V \leq V_{in} \leq -20V$, $5mA \leq I_{out} \leq 1A$, $PD \leq 15W$	-14.25	-15	-15.75		
线性调节 Line Regulation	REGline	$T_j = 25^{\circ}C$	$-17.5V \leq V_{in} \leq -30V$	--	12	300	mV
			$-20V \leq V_{in} \leq -26V$	--	6	150	
负载调节 Load Regulation	REGload	$T_j = 25^{\circ}C$	$5mA \leq I_{out} \leq 1.5A$	--	12	300	mV
			$250mA \leq I_{out} \leq 750mA$	--	4	150	
静态电流 Quiescent Current	Iq	$I_{out} = 0$, $T_j = 25^{\circ}C$	--	3	6	mA	
静态电流变化 Quiescent Current Change	ΔIq	$-17.5V \leq V_{in} \leq -30V$	--	0.1	1		
		$5mA \leq I_{out} \leq 1A$	--	0.05	0.5		
输出电压纹波 Output Noise Voltage	Vn	$10Hz \leq f \leq 100KHz$, $T_j = 25^{\circ}C$	--	250	--	μV	
浪涌衰减 Ripple Rejection Ratio	RR	$f = 120Hz$, $\Delta V_i = 10V$	54	60	--	dB	
衰减电压 Voltage Drop	Vdrop	$I_{out} = 1A$, $T_j = 25^{\circ}C$	--	2	--	V	
短路电流 Output Short Circuit Current	Isc	$V_{in} = -35V$, $T_j = 25^{\circ}C$	--	10	--	mA	
峰值电流 Peak Output Current	I _{o peak}	$T_j = 25^{\circ}C$	--	2.2	--	A	
输出电压特性 Temperature Coefficient of Output Voltage	$\Delta V_{out} / \Delta T_j$	$I_{out} = 5mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$	--	1.5	--	mV/ $^{\circ}C$	

印记 Marking:

