

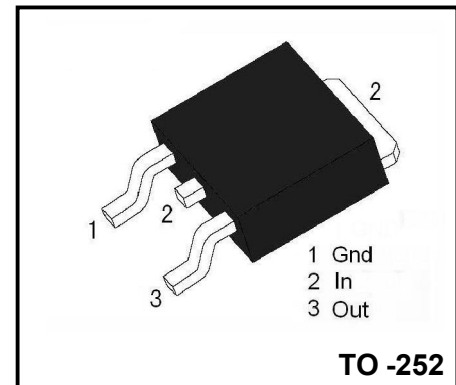
3-Terminal 1.5A Negative Voltage Regulator

Description

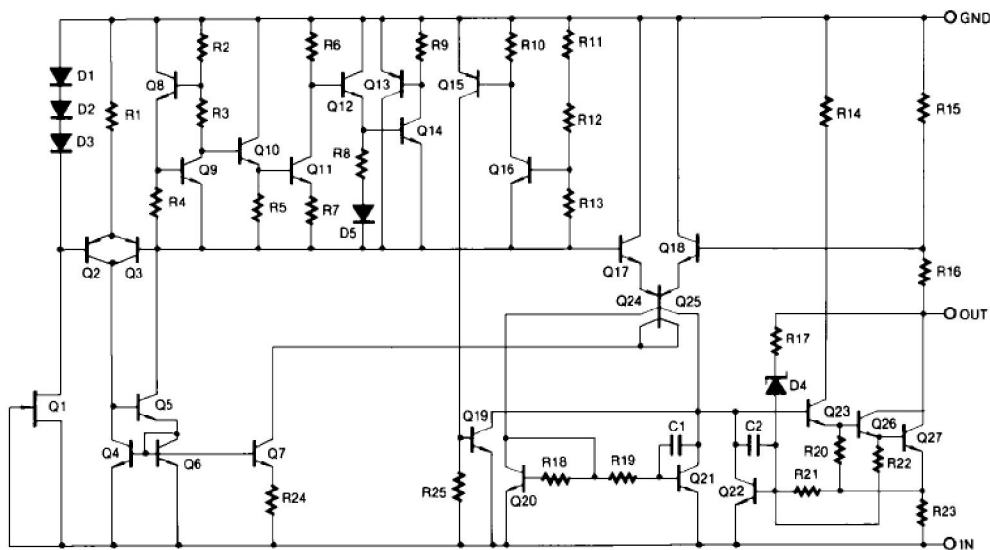
The 7905 series of 3-Terminal medium current negative voltage regulators are monolithic integrated circuits designed as fixed voltage regulators. These regulators employ internal current limiting, thermal shutdown and safe area compensation making them essentially indestructible.

Features

- ◆ No external components required
- ◆ Output current in excess of 1.5A
- ◆ Internal thermal overload
- ◆ Internal short circuit current limiting
- ◆ Output transistor safe area compensation
- ◆ Output voltages of -5V



Internal Block Diagram



Absolute Maximum Ratings (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Input voltage	V_{IN}	-30	V
Output voltage	V_O	-5	V
Thermal resistance junction-air	$R_{\theta JA}$	65	°C/W
Thermal resistance junction-cases	$R_{\theta JC}$	5	°C/W
Operating Junction Temperature Range	T_j	0 ~ 125	°C
Storage Temperature Range	T_{stg}	-65 ~ 150	°C

Electrical Characteristics (Ta = 25 °C)

(Refer to the test circuits, I_o=1A, V_I=-10V, C₁= 2.2μF, C_o=1μF unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Output voltage	V _O	T _j = 25°C	-4.8	-5.0	-5.2	V
		I _o = 5mA ~ 1A , P _o < 15W V _I = -7V ~ -20V	-4.75	-5.0	-5.25	
Line regulation (Note)	ΔV _O	T _j = 25°C	V _I = -7V ~ -25V		100	mV
			V _I = -8V ~ -12V		50	
Load regulation (Note)	ΔV _O	T _j = 25°C	I _o = 5mA ~ 1.5A		100	mV
			I _o = 0.25A ~ 0.75A		50	
Quiescent current	I _Q	T _j = 25°C			6.0	mA
Quiescent current change	ΔI _Q	I _o = 5mA ~ 1.5A V _I = -8 ~ -25V			0.5	mA
					0.8	
Output voltage drift	ΔV/ΔT	I _o = 5mA		-0.4		mV/°C
Output noise voltage	V _N	f = 10HZ ~ 100KHZ		40		μV
Ripple rejection	RR	f = 120Hz, ΔV _I = 10V		60		dB
Dropout voltage	V _D	T _j = 25°C, I _o = 1.5A		2		V
Short Circuit Current	I _{SC}	T _j = 25 , V _I = -30V		300		mA
Peak Current	I _{PK}	T _j = 25°C		2.2		A

Notes: Load and line regulation are specified at constant junction temperature. Change in V_o due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Applications circuits

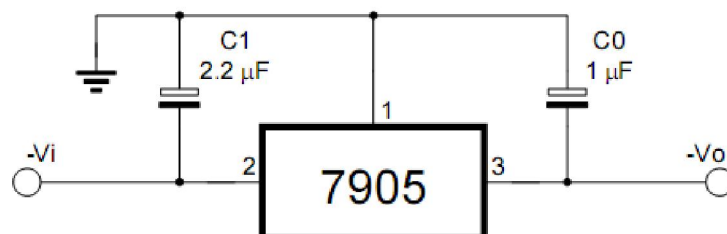


Figure.1 Fixed output regulator

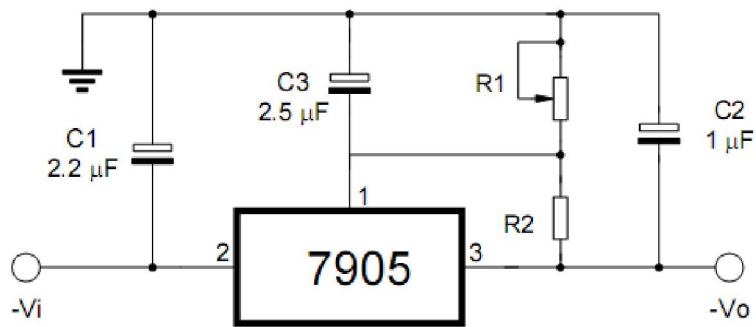


Figure.2 Circuit for increasing output voltage

Package Dimensions
TO -252

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.50	0.087	0.098
A1	0.00	0.12	0.000	0.005
A2	2.20	2.40	0.087	0.094
B	1.20	1.60	0.047	0.063
b	0.50	0.70	0.020	0.028
b1	0.70	0.90	0.028	0.035
c	0.40	0.60	0.016	0.024
c1	0.40	0.60	0.016	0.024
D	6.35	6.65	0.250	0.262
D1	5.20	5.40	0.205	0.213
E	5.40	5.70	0.213	0.224
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	9.60	10.20	0.378	0.402
L1	2.70	3.10	0.106	0.122
L2	1.40	1.80	0.055	0.071
L3	0.90	1.50	0.035	0.059

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
TO-252(D-PAK)	Tape/Reel,13"reel	2500	EIA-481-1

单击下面可查看定价，库存，交付和生命周期等信息

[>>YFW\(佑风微\)](#)