

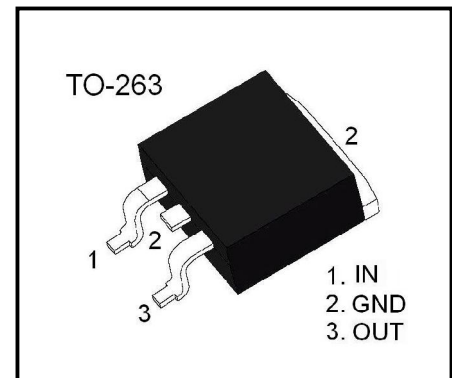
3-terminal 5V 1.5A positive voltage regulator

FEATURES

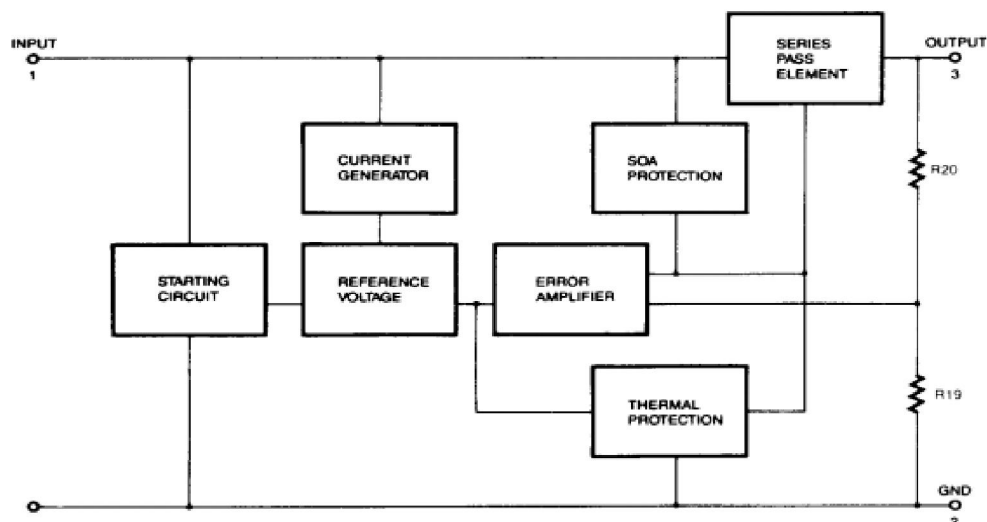
- ◆ Output Current up to 1.5A
- ◆ Output Voltages of 5V
- ◆ Thermal Overload Protection
- ◆ Short Circuit Protection
- ◆ Output Transistor Safe Operating area (SOA) Protection

Description

The 7805 three-terminal positive regulators are available in the TO-263 package with several fixed output voltages making it useful in a wide range of applications.



Internal Block Diagram



Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Input Voltage	V_{IN}	30	V
Out put Voltage	V_O	5	V
Continuous total dissipation	P_D	1.25	W
Operating Temperature Range	T_{OPR}	0 ~ + 125	°C
Storage Temperature Range	T_{STG}	-55 ~ + 150	°C

Electrical Characteristics

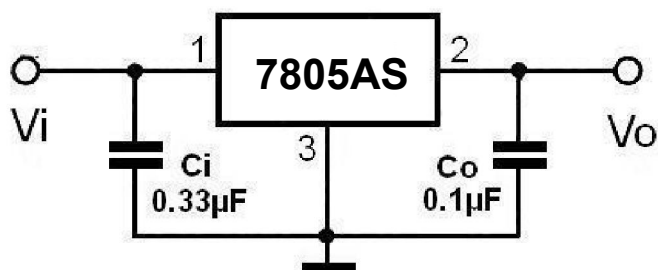
(Refer to the test circuits, $I_O=1.0A$, $V_I=10V$, $C_I = 0.33\mu F$, $C_O=0.1\mu F$ unless otherwise specified)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Output Voltage	V_O	$T_j = 25^\circ C$	4.8		5.2	V
		$V_I = 7 \sim 20V$ $I_O=5 \sim 1.5A$	4.75	5	5.25	
Line Regulation	ΔV_O	$T_j = 25^\circ C$			120	mV
		$V_I = 8 \sim 22V$			60	
Load Regulation	ΔV_O	$T_j = 25^\circ C$			120	mV
		$I_O=0.25A \sim 1.0A$			60	
Quiescent Current	I_Q	$T_j = 25^\circ C$			8	mA
Quiescent Current Change	ΔI_Q	$I_O=5mA \sim 1.5A$			0.5	mA
		$V_I = 7 \sim 25V$			1.2	
Output Voltage Drift	$\Delta V/\Delta T$	$I_O = 5mA$ $T_j = 0 \text{ to } +125^\circ C$		-0.8		mV/ $^\circ C$
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		40		μV
Ripple Rejection	RR	$f = 120Hz$, $I_O = 300mA$ $V_I = 8 \text{ to } 18V$	60			dB
Dropout Voltage	V_D	$T_j = +25^\circ C$, $I_O = 1.0A$		2		V
Short Circuit Current	I_{SC}	$T_j = +25^\circ C$, $V_I = 35V$		300		mA
Peak Current	I_{PK}			2.20		A

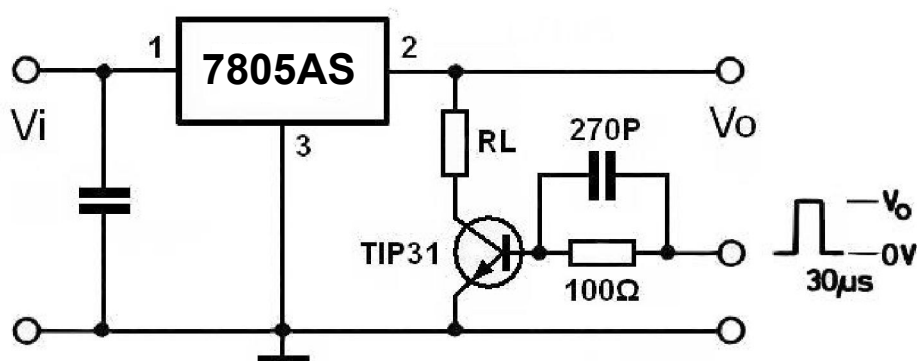
Notes:

*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.

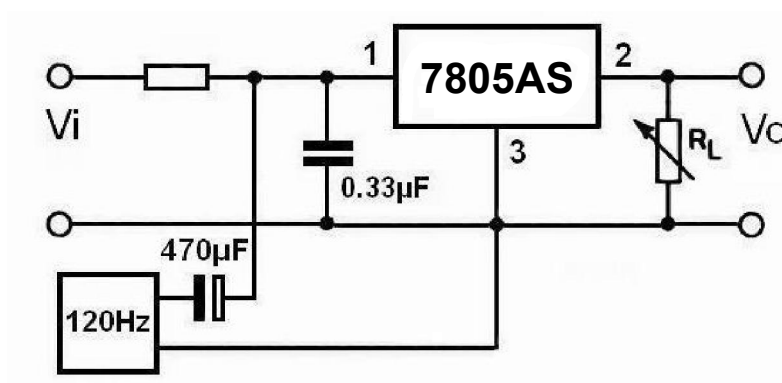
Test Circuits



DC Parameter



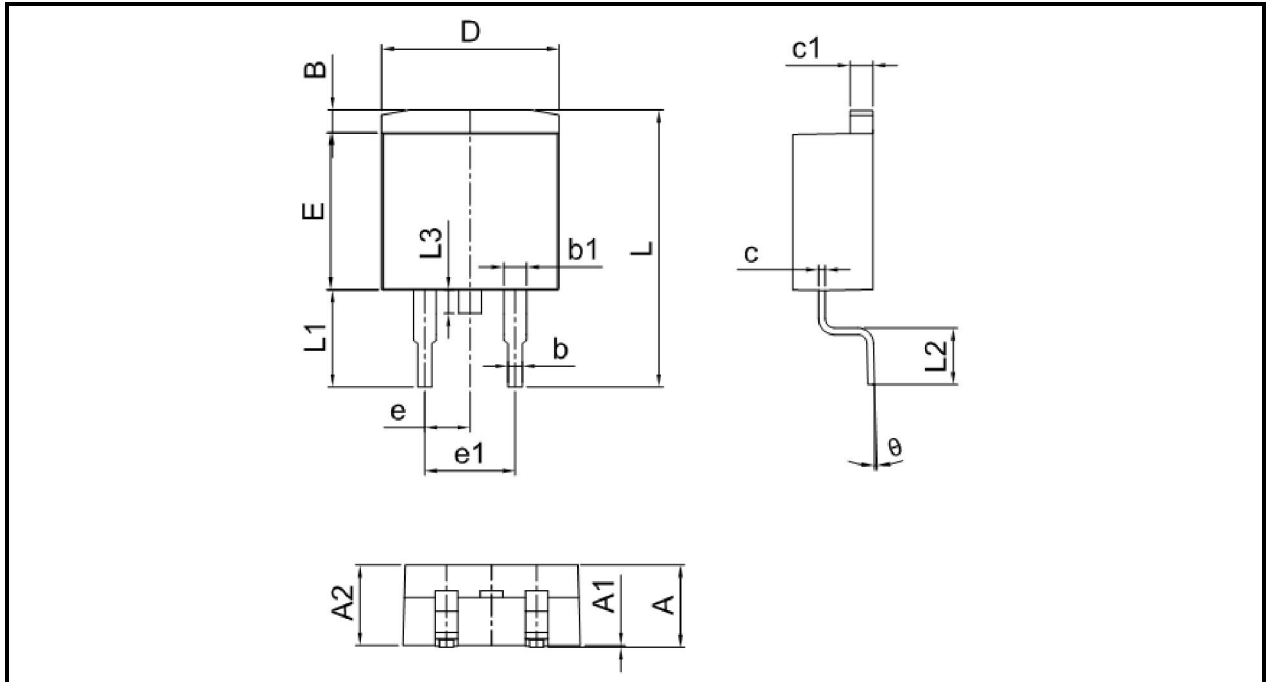
Load Regulation



Ripple Rejection

Package Dimensions

TO-263



Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.30	4.70	0.169	0.185
A1	0.00	0.15	0.000	0.006
A2	4.30	4.55	0.169	0.179
B	1.10	1.50	0.043	0.059
b	0.70	0.90	0.028	0.035
b1	1.20	1.50	0.047	0.059
c	0.30	0.60	0.012	0.024
c1	1.17	1.37	0.046	0.054
D	9.90	10.20	0.390	0.402
E	8.50	8.90	0.335	0.350
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
L	15.00	15.30	0.591	0.602
L1	5.20	5.40	0.205	0.213
L2	2.40	2.60	0.094	0.102
L3	1.60	1.80	0.063	0.071
θ	0°	8°	0°	8°

ORDERING INFORMATION

Part Number	Package	Marking	Pack
7805AS	TO-263	7805AS XXXXX	800PCS/Tape

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [LDO Voltage Regulators](#) category:

Click to view products by [YFW Electronics](#) manufacturer:

Other Similar products are found below :

[AP7363-SP-13](#) [NCV8664CST33T3G](#) [L79M05TL-E](#) [L9454](#) [AP7362-HA-7](#) [PT7M8202B12TA5EX](#) [TCR3DF185,LM\(CT](#) [TLF4949EJ](#) [L9708](#)
[L970813TR](#) [NCP4687DH15T1G](#) [NCV8703MX30TCG](#) [NCV4269CPD50R2G](#) [AP7315-25W5-7](#) [AP2111H-1.2TRG1](#) [ZLDO1117QK50TC](#)
[NCP114BMX075TCG](#) [MC33269T-3.5G](#) [TLE4471GXT](#) [NCV4266-2CST33T3G](#) [NCP715SQ15T2G](#) [NCV8623MN-50R2G](#)
[NCV563SQ18T1G](#) [NCV8664CDT33RKG](#) [NCV4299CD250R2G](#) [NCP715MX30TBG](#) [NCV8702MX25TCG](#) [L974113TR](#) [TLE7270-2E](#)
[NCV562SQ25T1G](#) [NCP715MX53TBG](#) [AP2202K-2.6TRE1](#) [NCV8170BMX300TCG](#) [NCV8152MX300180TCG](#) [NCP700CMT45TBG](#)
[AP7315-33W5-7](#) [LD56100DPU28R](#) [NCP154MX180300TAG](#) [NJM2878F3-45-TE1](#) [S-1313D18-N4T1U4](#) [AP7343D-31FS4-7B](#) [AP7315D-](#)
[33FS4-7B](#) [LD59150PUR](#) [XC6215B3027R-G](#) [XC6216C201MR-G](#) [XC6504A2019R-G](#) [XC6504A2517R-G](#) [XC6504A251NR-G](#)
[XC6702D331ER-G](#) [NCP3334AMTADJTBG](#)