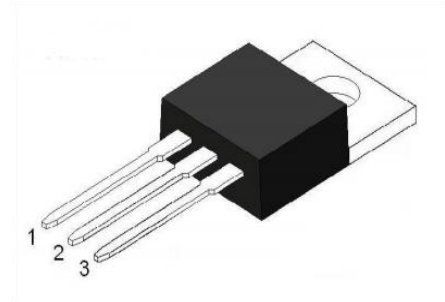




1.Features

- Output Current up to 1.5A
- Output Voltages of 12V
- Thermal Overload Protection
- Short Circuit Protection
- Output Transistor Safe Operating area (SOA)Protection

TO-220

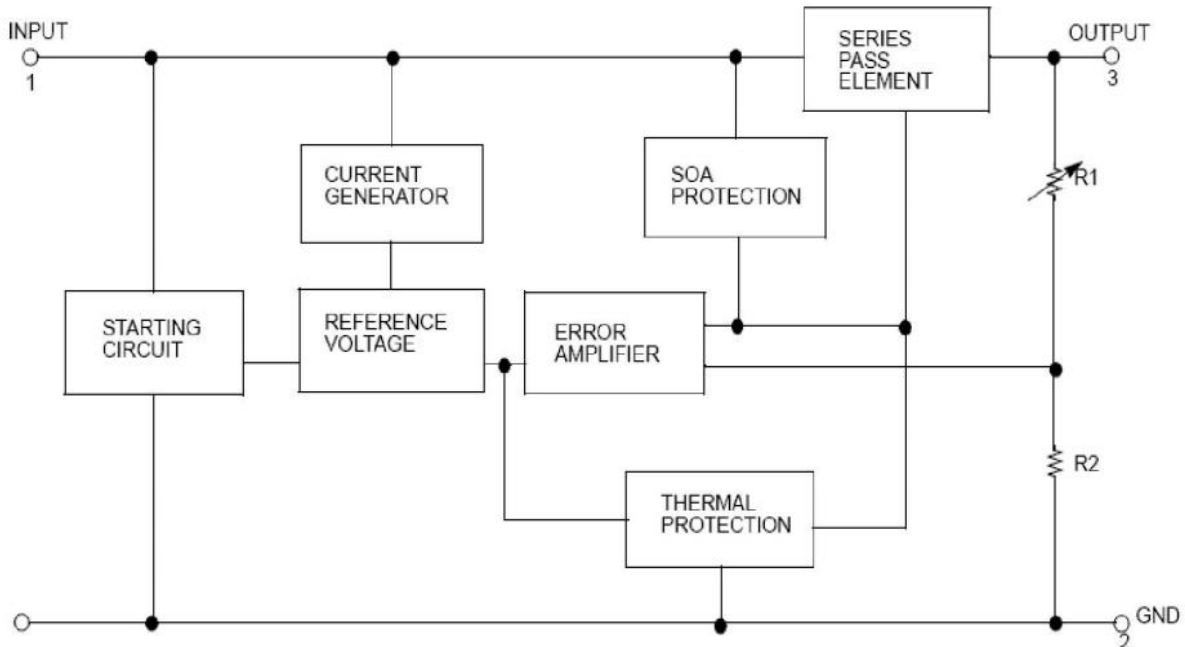


2.Mechanical Data

- Case:Molded Plastic,TO-220;
- Epoxy:UL 94V-0 rate flame retardant
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026.
- Marking: marked on body.
- Mounting Position : Any.

1.INPUT
2.GND
3.OUTPUT

3.Internal Block Diagram



**4.Maximum Ratings and Electrical Characteristics**

Rating at 25°C Ambient temperature unless otherwise specified

Parameters	Symbol	Value	Unit
Input Voltage	V_{IN}	30	V
Out put Voltage	I_{OUT}	1.5	A
Continuous total dissipation	P_D	Internally Limited	W
Operating Temperature Range	T_{OPR}	0~150	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

5.Electrical Characteristics (TA=25°C unless otherwise noted)(Refer to test circuit , $I_O = 0.75A$, $V_I = 10V$, $C_I = 0.33\mu F$, $C_O = 0.1\mu F$, unless otherwise specified)

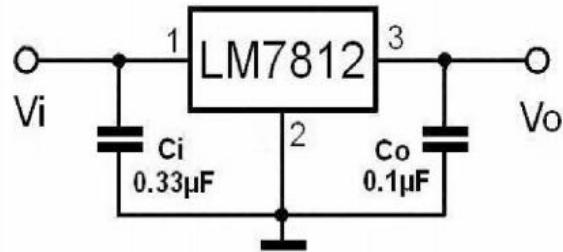
Parameters	Symbol	Cindition	Min	TYP	Max	Unit
Output Voltage	V_O	$I_O = 5mA \sim 1A$	11.5	12	12.5	V
		$V_I = 14.5 \sim 27V$, $I_O = 5mA \sim 1.5A$	11.4	12	12.6	V
Line Regulation	ΔV_O	$V_I = 14.5 \sim 30V$, $T_J = 25^\circ C$	-	-	240	mV
		$V_I = 16 \sim 30V$, $T_J = 25^\circ C$	-	-	120	mV
Load Regulation	ΔV_O	$V_I = 5m \sim 1.5V$, $T_J = 25^\circ C$	-	-	240	mV
		$V_I = 0.25 \sim 5V$, $T_J = 25^\circ C$	-	-	120	mV
Quiescent Current	I_Q	$T_J = 25^\circ C$	-	-	8	mV
Quiescent Current Change	ΔI_Q	$I_O = 5mA \sim 1.5A$	-	-	0.5	mV
		$V_I = 14.5 \sim 30V$	-	-	1	mV
Output Voltage Drift	$\Delta V / \Delta T$	$I_O = 5mA$, $T_J = 0 \sim 125^\circ C$	-	-0.8	-	mV/°C
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	-	75	-	μV
Ripple Rejection	RR	$f = 120Hz$, $V_I = 15$ to $25V$	55	-	-	dB
Dropout Voltage	V_d		-	2	-	V
Short Circuit Current	I_{SC}	$T_J = +25^\circ C$, $V_I = 35V$	-	300	-	mA
Peak Current	I_{PK}	$T_J = 25^\circ C$	-	2.2	-	A

Notes:

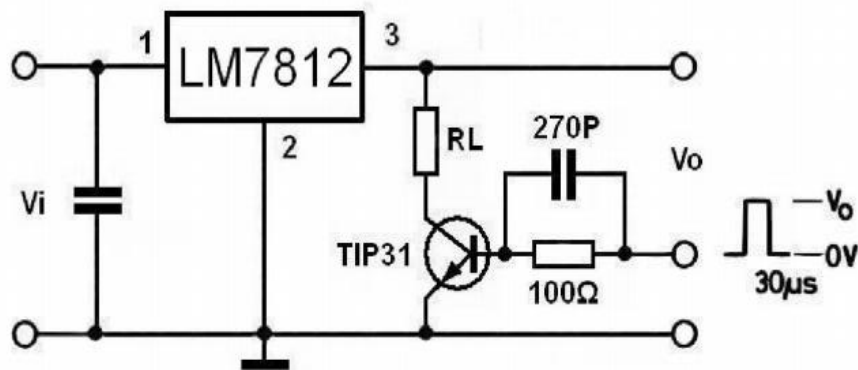
*Load and line regulation are specified at constant junction temperature. Change in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.



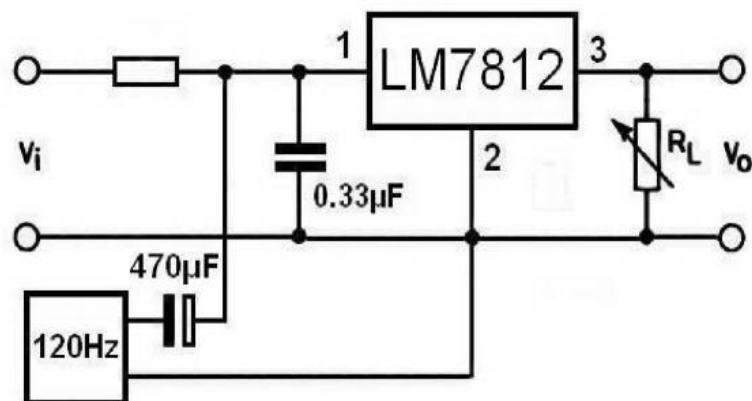
6.Test Circuits



DC Parameter



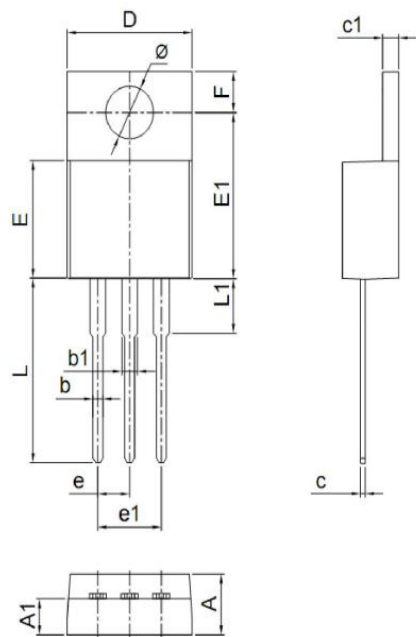
Load Regulation



Ripple Rejection

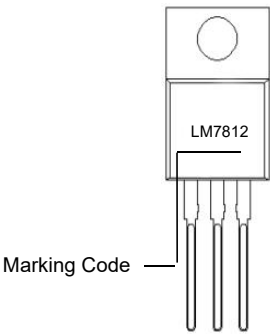
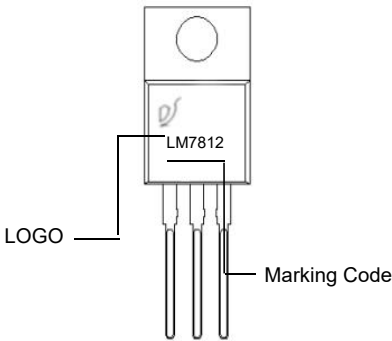


7. Test circuits



Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.169	0.185	4.30	4.70
A1	0.098	0.110	2.50	2.80
b	0.028	0.035	0.70	0.90
b1	0.047	0.059	1.20	1.50
c	0.012	0.024	0.30	0.60
c1	0.045	0.055	1.15	1.40
D	0.390	0.402	9.90	10.20
E	0.335	0.354	8.50	9.00
E1	0.472	0.492	12.00	12.50
e	0.094	0.104	2.40	2.65
e1	0.191	0.209	4.85	5.30
F	0.102	0.110	2.60	2.80
L	0.520	0.543	13.20	13.80
L1	0.150	0.165	3.80	4.20
Ø	0.142	0.157	3.60	4.00

8. Part Marking System



9. Package Information

Package	Packing Type	Quantity(pcs)
TO-220	Tube	50



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