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78L08 Three-terminal positive voltage regulator

TO-92 Encapsulate Three Terminal Voltage Regulator

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客户确认：

公司签章：

部门	工程部	品保部	采购部
签名			
日期			



TO-92 Encapsulate Three-terminal Voltage Regulator

78L08 Three-terminal positive voltage regulator

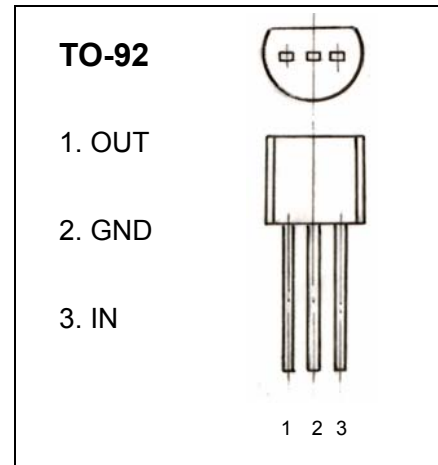
FEA TURES

Maximum Output current

I_{OM} : 0.1 A

Output voltage

V_o : 8 V



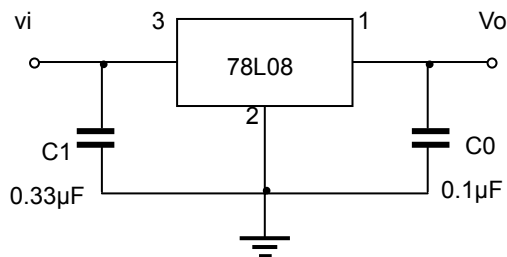
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter Symbol		Value	Units
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0~+125	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS ($V_I=14V, I_o=40mA, 0^\circ C < T_j < 125^\circ C, C_1=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

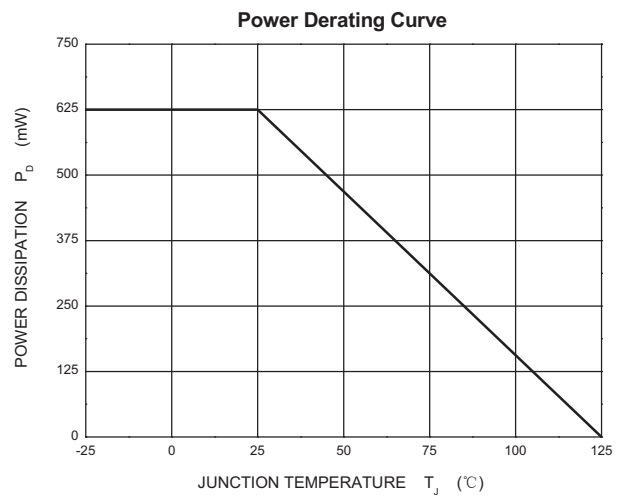
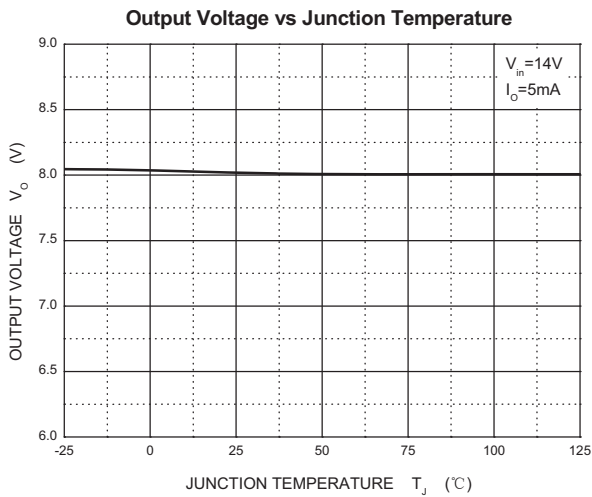
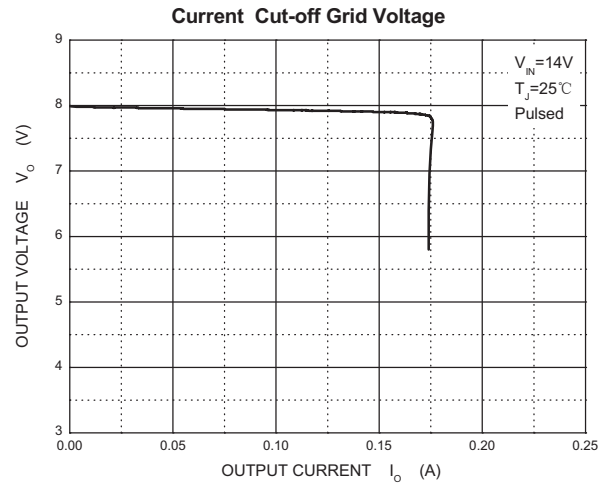
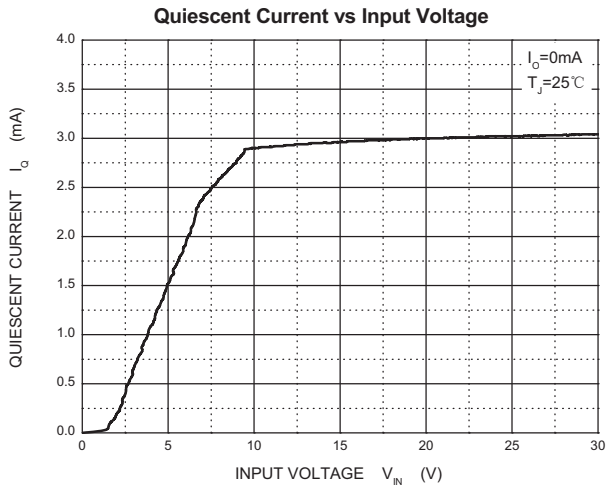
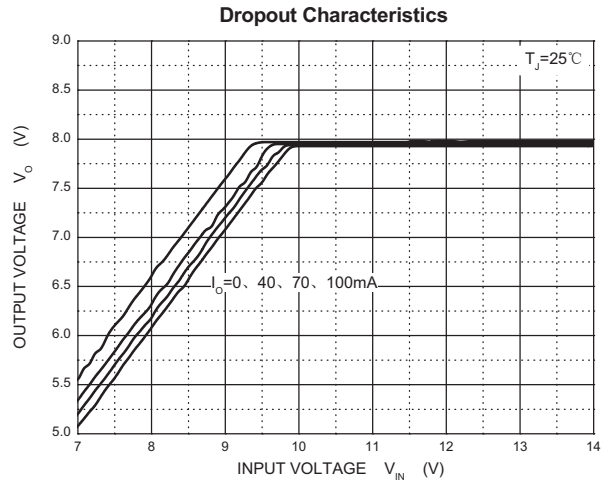
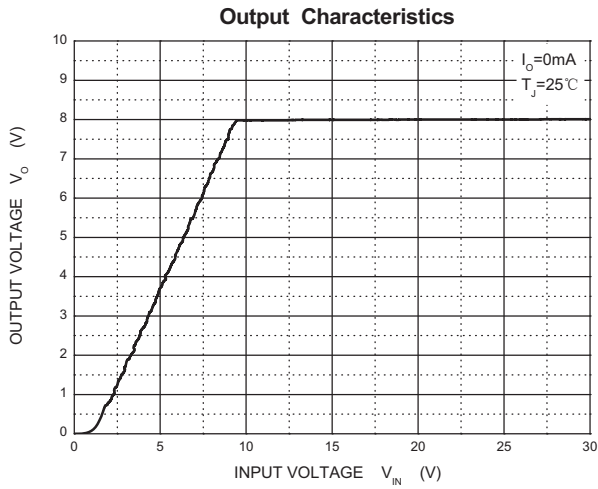
Parameter Sy	mbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25^\circ C$	7.7	8.0	8.3	V
		$10.5V \leq V_I \leq 23V, I_o=1mA \sim 40mA$	7.6	8.0	8.4	V
		$10.5V \leq V_I \leq 23V, I_o=1mA \sim 70mA$	7.6	8.0	8.4	V (note)
Load Regulation	ΔV_o	$T_j=25^\circ C, I_o=1mA \sim 100mA$		18	80	mV
		$T_j=25^\circ C, I_o=1mA \sim 40mA$		10	40	mV
Line regulation	ΔV_o	$10.5V \leq V_I \leq 23V, T_j=25^\circ C$		42	175	mV
		$11V \leq V_I \leq 23V, T_j=25^\circ C$		36	125	mV
Quiescent Current	I_q	$T_j=25^\circ C$		4	6	mA
Quiescent Current Change	ΔI_q	$11V \leq V_I \leq 23V$			1.5	mA
	ΔI_q	$1mA \leq I_o \leq 40mA$			0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		54		μV
Ripple Rejection	RR	$13V \leq V_I \leq 23V, f=120Hz, T_j=25^\circ C$	37	46		dB
Dropout Voltage	V_d	$T_j=25^\circ C$		1.7		V

TYPICAL APPLICATION

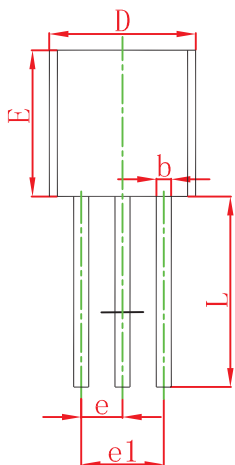
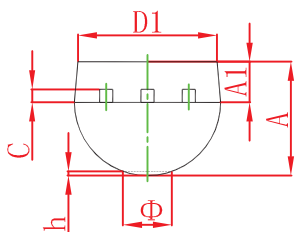


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Typical Characteristics

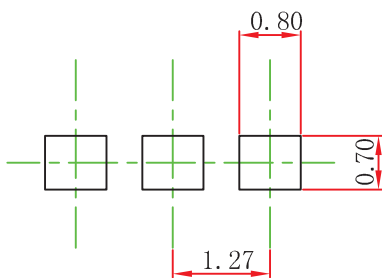


TO-92 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.