AOS SEMICONDUCTOR

产品规格说明书

Product Data Sheet

L7812-1.5A

TO-220-3L Plastic-Encapsulate Voltage Regulators

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L7812 Three-terminal postve voltage regulator

TO-220-3L

■ Features

Maximum Output current I_{OM}:1.5A
Output voltage V_O:5V
Continuous total dissipation
P_D:1.5W(Ta=25℃)
15W(TC=25℃)

■ BSOLUTEMAXIMUMRATINGS(Operatingtemperaturerangeappliesunlessotherwise specified)

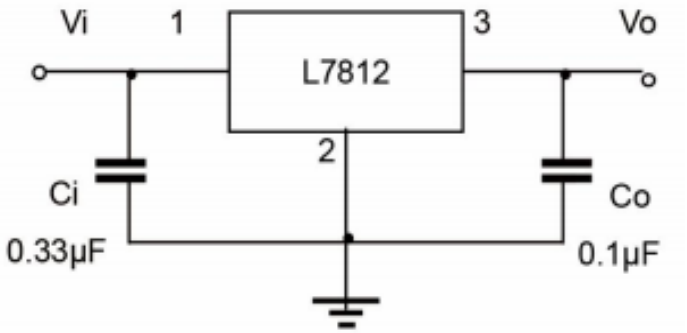
Characteristics	Symbol	Value	Unit
Input Voltage	Vi	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	83.3	℃/W
Thermal Resistance from Junction to Case	$T_{\theta JC}$	8.3	℃/W
Operating Junction Temperature Range	T_{OPR}	0~+150	℃
Storage Temperature Range	T_{STG}	-55~+150	℃

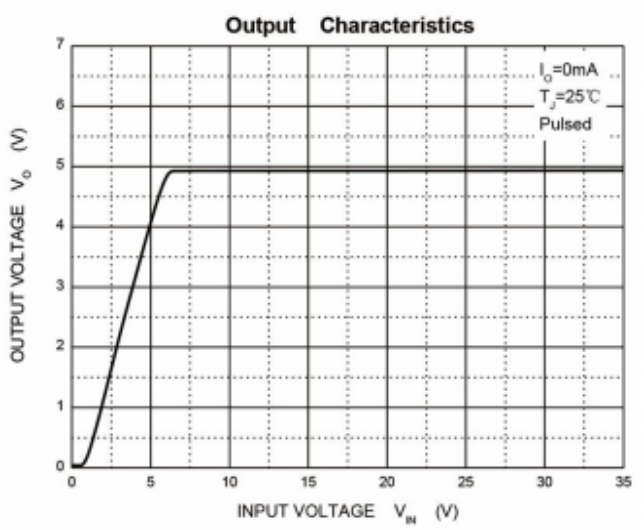
■ ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JINCTION TEMPERATURE

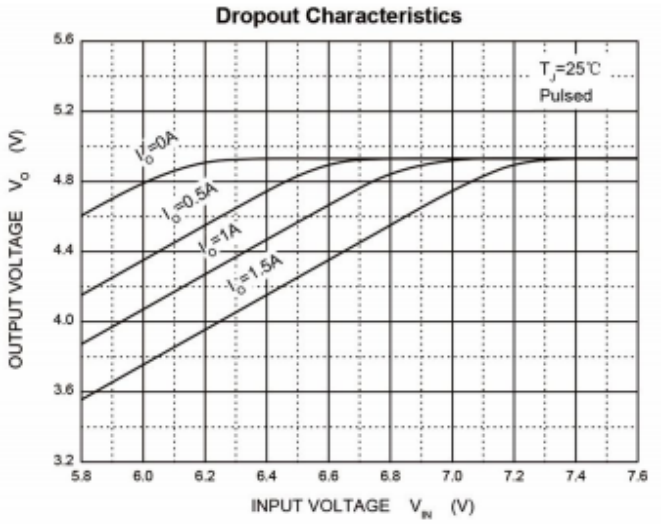
(Vi=10V,IO=500mA,Ci=0.33μF.CO=0.1μF,unless otherwise specifed)

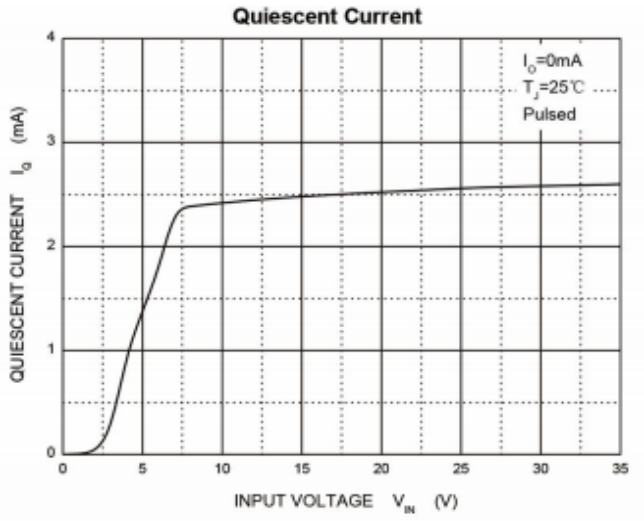
Parameter	Symbol	Test conditions		Min.	Typ.	Max.	Unit
Output voltage	VO		25℃	-4.8	-5	-5.2	V
		-7V≤Vi≤-20V,Io=5mA-1A,P≤15W	0~125℃	-4.75	-5	-5.25	
Load Regulation	ΔVO	Io5mA-1.2A	25℃		15	100	mV
		Io=250mA-750mA	25℃		5	50	
Line regulation	ΔVO	-7V≤Vi≤-25V	25℃		12.5	50	mV
		-8V≤Vi≤-12V	25℃		4	15	
Quiescent Current	Iq		25℃		1.5	2	mA
Quiescent Current Change	ΔIq	-7V≤Vi≤-25V	0~125℃			0.5	mA
		5mA≤Io≤1A	0~125℃			0.5	
Output Noise Voltage	VN	10Hz≤f≤100KHz	25℃		125		uV
Output voltage drift	ΔVO/ΔT	Io5mA	0~125℃		-0.4		mV/℃
Ripple Rejection	RR	-8V≤Vi≤-18V,f=120Hz	0~125℃	54	60		dB
Dropout Voltage	Vd	Io=1A	25℃		1.1		V
Peak Current	Ipk		25℃		2.0		A

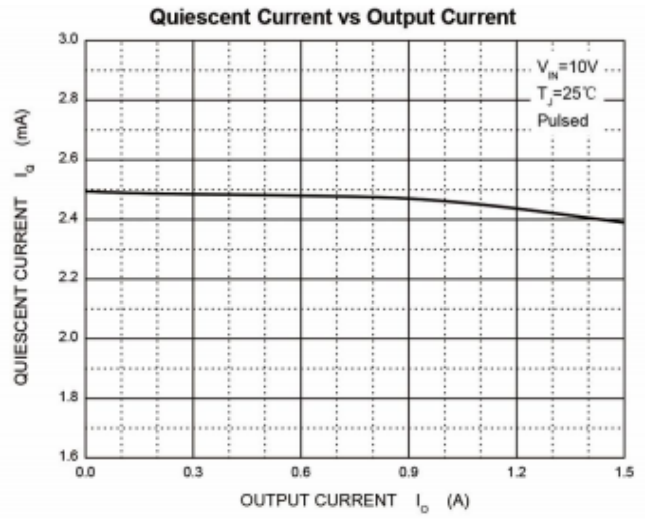
■ TYPICAL APPLICATION











■ Block Diagram