Product specification

LM7912J

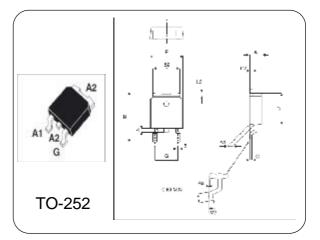
3-Terminal 1A Positive Voltage Regulator

GENERAL DESCRIPTION

The LM7912 series of three terminal positive regulators are available in the TO-220 package and with several fixed output voltages, making them useful in a wide range of applications. Each type employs internal current limiting, thermal shut down and safe operating area protection, making it essentially indestructible. If adequate heat sinking is provided, they can deliver over 1A output current. Although designed primarily as fixed voltage regulators, these devices can be used with external components to obtain adjustable voltages and currents.

ABSOLUTE MAXIMUM RATINGS (Ta = 25 $^{\circ}$ C)

Parameter	Symbol	Тур	Unit	
Input Voltage	V	-35	V	
Output Voltage	Vo	-12	V	
Peak Current	I _{PK}	-2.2	A	
Operating Temperature Range	T _{OPR}	0~125	°C	
Storage Temperature Range	T _{stg}	-65~150	°C	



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

(Refer to test circuit, Io = -500mA, Vi = -18V, Ci= 2.2uF, Co=1.0uF unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Тур	Мах	Unit
Output Voltage	Vo	V ₁ = -14.5V to -30V	-11.64	-12	-12.36	V
Line Regulation (Note1)	Regline	$V_1 = -14.5V$ to $-30V$		-12	-240	mV
	Regime	$V_1 = -16V$ to $-22V$		-6.0	-120	
Load Regulation (Note1)	Regload	I _o = -5.0mA to-1.5A		-12	-240	mV
	Tegload	I _o =-250mA to -750mA		-4	-120	
Quiescent Current	Ι _Q	T _J =+25 °C		-3	-6	mA
Quiescent Current Change		$I_o = -5mA$ to $-1A$		_	-0.5	mA
	ΔI_Q	$V_1 = -15V \text{ to } -30V$			-1.0	
Ripple Rejection	RR	$f = 120Hz, V_0 = -15V \text{ to } -25V$	54	60		dB
Dropout Voltage	V _{Drop}	I _o = -1A, T _J =+25 °C		-2		V
Short Circuit Current	I _{sc}	V ₁ = -35V, T _A =+25 °C		-300		mA
Peak Current	I _{PK}	T _J =+25 °C		-2.2		Α