TIGER ELECTRONIC CO.,LTD

Product specification

3-Terminal 1A Negative Voltage Regulator — LM7912J

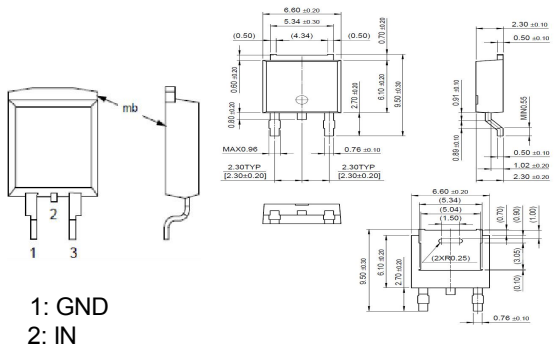
RoHS COMPLIANT

GENERAL DESCRIPTION

The LM7912J series of three-terminal negative regulators are available in TO-252 package and with several fixed output voltages, making them useful in a wide range of applications. Each type employs internal current limiting, thermal shutdown and safe operating area protection, making it essentially indestructible.

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Parameter	Symbol	Typ	Unit
Input Voltage	V_I	-35	V
Output Voltage	V_O	-12	V
Peak Current	I_{PK}	-2.2	A
Operating Temperature Range	T_{OPR}	0~125	°C
Storage Temperature Rang e	T_{STG}	-65~150	°C



1: GND
2: IN
3: OUT

TO-252

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	Typ	Max	Unit
Output Voltage	V_O	Tj = 25℃ V_I= -15.5V ~ -27V I_O = 5.0mA~1.0A, P_D<15W	-11.64	-12.0	-12.36	V
Line Regulation	$\triangle V_o$	Tj = 25℃, Vi= -15V ~ -30V	—	—	-240	mV
		Tj = 25℃, V_I = -16V ~ -22V	—	—	-120	
Load Regulation	$\triangle V_o$	Tj = 25℃, I_O = 5.0mA ~1.0A	—	—	-240	mV
		Tj = 25℃ I_O = 250mA ~ 750mA	—	—	-120	
Quiescent Current	I_Q	T_J=+25 °C	—	—	-8	mA
Quiescent Current Change	△IQ	Io = 5.0mA ~ 1.0A			-0.5	mA
		Tj = 25℃, Vi= -15V ~ -30V			-1.0	mA
Output voltage drift	△Vo/△T	Io = 5.0mA		-0.8		mV/℃
Ripple Rejection	RR	f = 120Hz, V_O = -15V to -22V	54	60	—	dB
Dropout Voltage	V_{Drop}	I_O = 1.0A, T_J =+25 °C	—	-2	—	V
Output Resistance	R_O	f = 1KHz	—	0.015	—	Ω
Short Circuit Current	I_{SC}	V_I = -35V, T_A =+25 °C	—	-300	—	mA
Peak Current	I_{PK}	T_J =+25 °C	—	—	-2.2	A