TIGER ELECTRONIC CO.,LTD

Product specification

3-Terminal 1A Negative Voltage Regulator — LM7908J

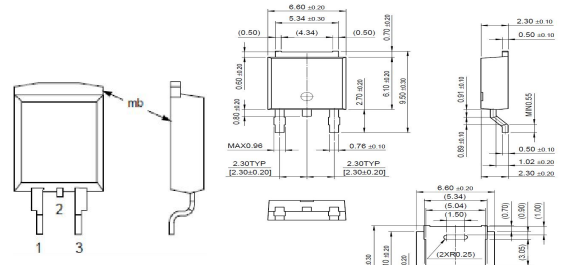
RoHS COMPLIANT

GENERAL DESCRIPTION

The LM7908J 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	-8.0	V
Peak Current	I_{PK}	-2.2	A
Operating Temperature Range	T_{OPR}	0~125	°C
Storage Temperature Range	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 = -14V, 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 = -11V ~ -23V I_O = 5.0mA~1.0A, P_D<10W	-7.76	-8.0	-8.24	V
Line Regulation	$\triangle V_o$	Tj = 25℃, Vi= -11V ~ -25V	—	—	-160	mV
		Tj = 25℃, V_I = -12V ~ -17V	—	—	-80	
Load Regulation	$\triangle V_o$	Tj = 25℃, I_O = 5.0mA ~1.0A	—	—	-160	mV
		Tj = 25℃ I_O = 250mA ~ 750mA	—	—	-80	
Quiescent Current	I_Q	T_J =+25 °C	—	—	-8.0	mA
Quiescent Current Change	$\triangle IQ$	Io = 5.0mA ~ 1.0A			-0.5	mA
		Tj = 25℃, Vi= -11V ~ -25V			-1.3	mA
Output voltage drift	$\triangle Vo/\triangle T$	Io = 5.0mA		-0.8		mV/℃
Ripple Rejection	RR	f = 120Hz, V_O = -12V to -21V	56	73	—	dB
Dropout Voltage	V_{Drop}	I_O = 1A, T_J =+25 °C	—	-2	—	V
Output Resistance	R_O	f = 1KHz	—	0.017	—	Ω
Short Circuit Current	I_{SC}	V_I = -35V, T_A =+25 °C	—	-230	—	mA
Peak Current	I_{PK}	T_J =+25 °C	—	—	-2.2	A