TIGER ELECTRONIC CO.,LTD

Product specification

3-Terminal 1A Positive Voltage Regulator

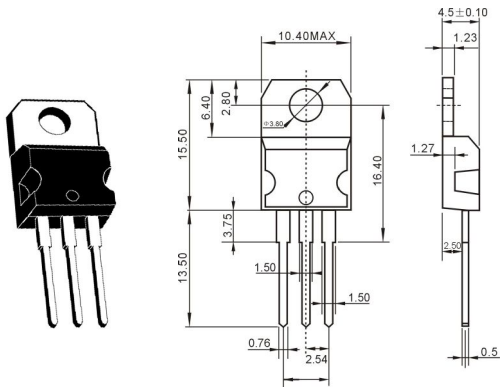
LM7812

GENERAL DESCRIPTION

The LM7812 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 °C)

Parameter	Symbol	Typ	Unit
Input Voltage	V_I	35	V
Output Voltage	V_O	12.0	V
Peak Current	I_{PK}	2.2	A
Operating Temperature Range	T_{OPR}	0~125	°C
Storage Temperature Range	T_{STG}	-65~150	°C



TO-220

ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

(Refer to test circuit, Io = 500mA, Vi = 19V, Ci= 0.33uF, Co=0.1uF unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_O	V_I = 14.5V to 30V	11.64	12.0	12.36	V
Line Regulation (Note1)	Regline	V_I = 14.5V to 30V		10	240	mV
		V_I = 16V to 22V		3.0	120	
Load Regulation (Note1)	Regload	I_O = 5.0mA to1.5A		11	240	mV
		I_O =250mA to 750mA		5	120	
Quiescent Current	I_Q	T_J =+25 °C		5.1	8	mA
Ripple Rejection	RR	f = 120Hz, V_O = 15V to 30V	56	73		dB
Dropout Voltage	V_{Drop}	I_O = 1A, T_J =+25 °C		2		V
Output Resistance	r_O	f = 1KHz		0.018		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