TIGER ELECTRONIC CO.,LTD

Product specification

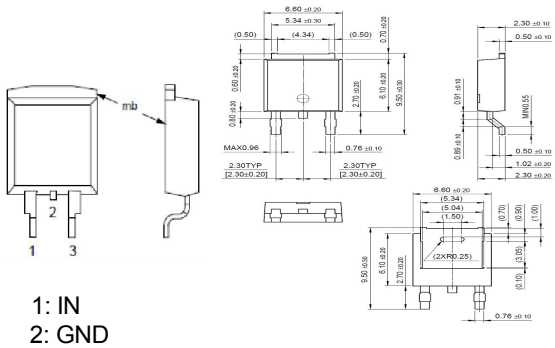
3-Terminal 1A Positive Voltage Regulator — LM7818J

GENERAL DESCRIPTION

The LM7818 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	18.0	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: IN
2: GND
3: OUT

ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

(Refer to test circuit, Io = 500mA, Vi = 27V, Ci= 0.33uF, Co=0.1uF unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_O	V_I = 21V to 33V	17.46	18.0	18.54	V
Line Regulation (Note1)	Regline	V_I = 21V to 33V	—	15	360	mV
		V_I = 24V to 30V	—	5	180	
Load Regulation (Note1)	Regload	I_O = 5.0mA to1.5A	—	15	360	mV
		I_O =250mA to 750mA	—	5	180	
Quiescent Current	I_Q	T_J =+25 °C	—	5.2	8	mA
Ripple Rejection	RR	f = 120Hz, V_O = 22V to 32V	53	69	—	dB
Dropout Voltage	V_{Drop}	I_O = 1A, T_J =+25 °C	—	2	—	V
Output Resistance	r_O	f = 1KHz	—	0.022	—	Ω
Short Circuit Current	I_{SC}	V_I = 35V, T_A =+25 °C	—	250	—	mA
Peak Current	I_{PK}	T_J =+25 °C	—	2.2	—	A