Features

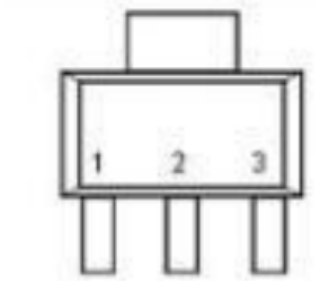
- Output Current of 1.5A
- Output transistor safe area protection
- No external components
- Package：SOT223

General Description

LM7805MPX is three-terminal positive regulators One of these regulators can deliver up to 1.5A of output current. When used as a replacement Zener diode-resistor Combination, an effective improvement in output impedance can be obtained, together with lower quiescent current.

Pin Configuration

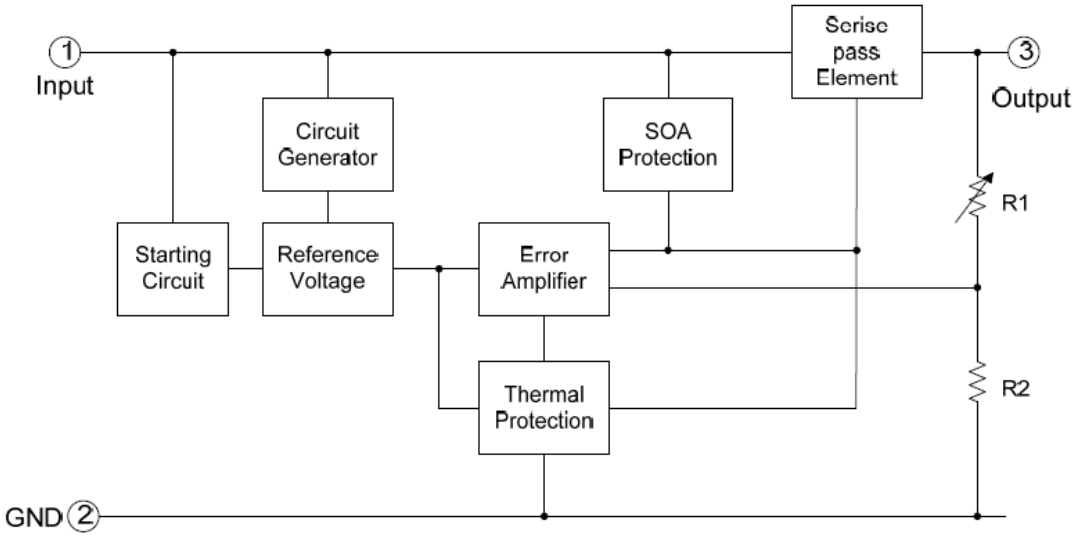
SOT223 (Top View)



SOT-223

PIN NO.	PIN NAME	FUNCTION
1	VIN	Input voltage pin
2	GND	Ground pin
3	VOUT	Output voltage pin

Block Diagram



Absolute Maximum Ratings（Ta=25℃）

Parameter	Rating	Unit
Input supply voltage: VIN	35	V
MAX. Output current:Iout	1500	mA
MAX Power:Pmax	1	W
Maximum junction temperature:Tj	-40~125	℃
Storage temperature:Tstr	-55~155	℃
Soldering temperature and time	+260(Recommended 10S)	℃

Note: The absolute maximum ratings are rated values exceeding which the product could suffer physical damage. These values must therefore not be exceeded under any conditions.

Electrical Characteristics

(Cin=0.33uF, Co=0.1uF,Ta=25℃， unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Output Voltage	Vout	Io=40mA, VIN=10V	0.964vout	vout	1.036vout	V
		Io=1mA~40mA VIN=7V~18V	0.96vout	vout	1.04vout	
		Io=10mA VIN=10V	0.95vout	vout	1.05vout	
Line Regulation	LNR	VIN=7V~18V, Io=40mA	-150	-	150	mV
		VIN=8V~18V, Io=40mA	-100	-	100	
Load Regulation	LDR	VIN=10V, Io=1mA~100mA	-60	-	60	mV
		VIN=10V, Io=1mA~40mA	-30	-	30	
Dropout Voltage	V_{DIF}	Ta=25℃， Io=500mA	-	1.7	-	V
Quiescent Current	I_Q	VIN=10V	-	1.5	--	mA
Quiescent Current Change	$\triangle I_Q$	VIN=8V~18V, I_O=40mA	-1.5	-	1.5	mA
		VIN=10V, IOUT=1mA~40mA,	-0.1	-	0.1	

LNR: Line Regulation. The change in output voltage for a change in the input voltage. The measurement is made under conditions of low dissipation or by using pulse techniques such that the average chip temperature is not significantly affected.

LDR: Load Regulation.The change in output voltage for a change in load current at constant chip temperature.

Typical Performance Characteristics