WEJ7812 Three-terminal positive voltage regulator

FEATURES

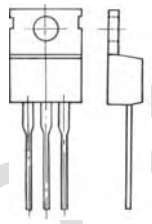
Maximum Output current

I_{OM}: 1 A

Output voltage

V_o: 12 V

TO-220



1. IN
2. GND
3. OUT

1 2 3

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	40	V
Operating Junction Temperature Range	T_{OPR}	0-125	℃
Storage Temperature Range	T_{STG}	-55-150	℃

ELECTRICAL CHARACTERISTICS (Vi=19V,Io=500mA,0℃<Tj<125℃,Ci=0.33μF,Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	Vo	Tj=25℃	11.5	12.0	12.5	V
		5.0mA<Io<1.0A, Po<15W V_i=14.5V to 27V	11.4	12	12.6	V
Load Regulation	ΔVo	Tj=25℃, V_i=14.5V to 30V		10	240	mV
		Tj=25℃, V_i=16V to 22V		3	120	mV
Line regulation	ΔVo	Tj=25℃, I_O=5.0mA to 1.5A		11	240	mV
		Tj=25℃, I_O=250mA to 750mA		5.0	120	mV
Quiescent Current	Iq	Tj=25℃		5.1	8	mA
Quiescent Current Change	ΔIq	I_O=5.0mA to 1.0A			0.5	mA
		V_i=14.5V to 30V			1.0	mA
Output Noise Voltage	V_N	f =10Hz to 100KHz,Ta=25℃		76		μV
Ripple Rejection	RR	f =120Hz, V_i=15V to 25V	55	71		dB
Dropout Voltage	V_d	I_O=1.0A,Tj=25℃		2		V
Output resistance	R_O	f = 1KHz		18		mΩ
Short Circuit Current	Isc	V_i=35V, Ta=25℃		230		mA
Peak Current	Ipk	Tj=25℃		2.2		A

TYPICAL APPLICATION