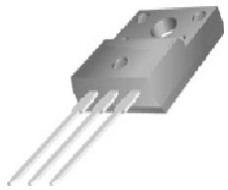
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-220F Encapsulate Three-terminal Voltage Regulator

CJ7812F Three-terminal positive voltage regulator

TO-220F



1. IN
2. GND
3. OUT

FEATURES

Maximum Output current I_{OM}: 1.5 A
Output voltage V_o: 12 V
Continuous total dissipation

P_D: 2 W (T_J = 25 ℃)

15 W (T_C= 25 ℃)

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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0-150	℃
Storage Temperature Range	T_{STG}	-65-150	℃

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

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

TYPICAL APPLICATION