

THREE-TERMINAL POSITIVE VOLTAGE REGULATOR

FEATURES

Maximum output current

 $I_{OM} : 1.5A$

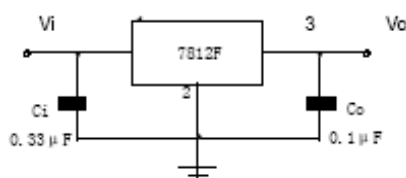
Output voltage

 $V_O : 12 \text{ V}$

Continuous total dissipation

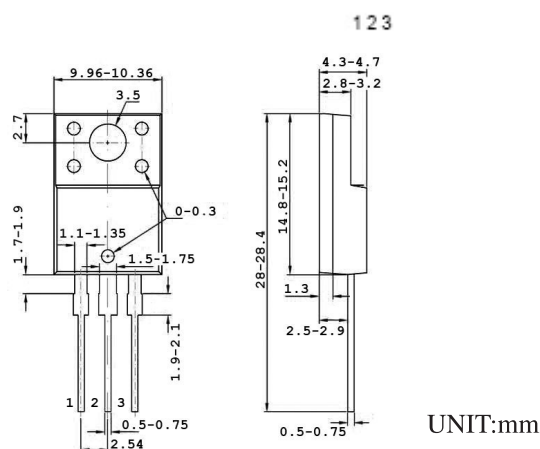
$$P_D: 2W (T_J=25^{\circ}\text{C})$$
15W ($T_C=25^{\circ}\text{C}$)

TYPICAL APPLICATION



TO-220F

1. IN
2. GND
3. OUT



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

Parameters	Symbols	Value	UNITS
Input Voltage	V_I	35	V
Thermal Resistance Junction - Air	$R_{\theta JA}$	65	$^{\circ}\text{C}/\text{W}$
Thermal Resistance Junction - Cases	$R_{\theta JC}$	5	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_{OPR}	0~+150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

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

Parameters	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output Voltage	V _O	T _J =25°C	11.5	12.0	12.5	V
		14.5V≤V _I ≤27V, I _O =5mA-1A P<15W	11.4	12	12.6	V
Load Regulation	ΔV _O	T _J =25°C, 14.5V≤V _I ≤30V		10	240	mV
		T _J =25°C, 16V≤V _I ≤22V		3	120	mV
Line Regulation	ΔV _O	T _J =25°C, I _O =5mA-1.5A		12	240	mV
		T _J =25°C, I _O =250mA-750mA		4	120	mV
Quiescent Current	I _q	T _J =25°C		4.3	8	mA
Quiescent Current Change	Δ I _q	5.0mA≤I _O ≤1.0A			0.5	mA
		14.5V≤V _I ≤30V			1.0	mA
Output Voltage Drift	ΔVo/ΔT	I _O =5mA		-1		mV/°C
Output Noise Voltage	V _N	f=10Hz to 100KHz, T _J =25°C		75		μV
Ripple Rejection	RR	15V≤V _I ≤25V, f=120Hz	55	71		dB
Dropout Voltage	V _d	T _J =25°C, I _O =1.0A		2		V
Output Resistance	R _O	f=1KHz		18		mΩ
Short Circuit Current	I _{sc}	V _I =35V, T _J =25°C		350		mA
Peak Current	I _{pk}	T _J =25°C		2.2		A