

THREE-TERMINAL POSITIVE VOLTAGE REGULATOR

FEATURES

Maximum output current

$I_{OM} : 1.5A$

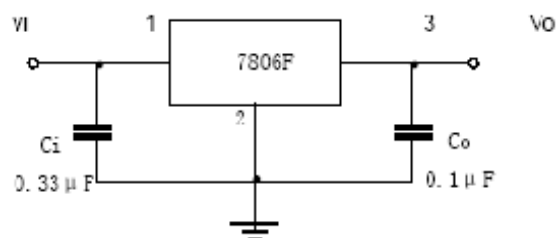
Output voltage

$V_O : 6 \text{ V}$

Continuous total dissipation

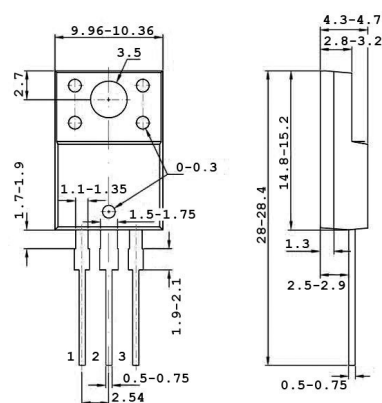
$$P_D : 2W (T_J=25^{\circ}\text{C})$$

TYPICAL APPLICATION



TO-220F

1. IN
2. GND
3. OUT



UNIT:mm

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 _{θJA}	65	°C/W
Thermal Resistance Junction - Cases	R _{θJC}	5	°C/W
Operating Junction Temperature Range	T _{OPR}	0~+150	°C
Storage Temperature Range	T _{STG}	-65~+150	°C

ELECTRICAL CHARACTERISTICS

(Vi=11V, 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	5.75	6	6.25	V
		8V≤V _i ≤21V, I _o =5mA-1A, P≤15W	5.7	6	6.3	V
Load Regulation	ΔV _O	T _J =25°C, I _o =5mA-1.5A		14	120	mV
		T _J =25°C, I _o =250mA-750mA		4	60	mV
Line Regulation	ΔV _O	8V≤V _i ≤25V, T _J =25°C		5	120	mV
		9V≤V _i ≤13V, T _J =25°C		1.5	60	mV
Quiescent Current	I _q	T _J =25°C		4.3	8	mA
Quiescent Current Change	Δ I _q	8V≤V _i ≤25V			1.3	mA
		5mA≤I _o ≤1A			0.5	mA
Output Voltage Drift	ΔVo/ΔT	I _o =5mA		-0.8		mV/°C
Output Noise Voltage	V _N	10Hz≤f≤100KHz		45		μV
Ripple Rejection	RR	9V≤V _i ≤19V, f=120Hz, T _J =0-125°C	59	75		dB
Dropout Voltage	V _d	T _J =25°C, I _o =1A		2		V
Output Resistance	R _o	f=1KHz		19		mΩ
Short Circuit Current	I _{sc}	V _i =35V, T _J =25°C		550		mA
Peak Current	I _{pk}	T _J =25°C		2.2		A