

Three-terminal positive voltage regulator

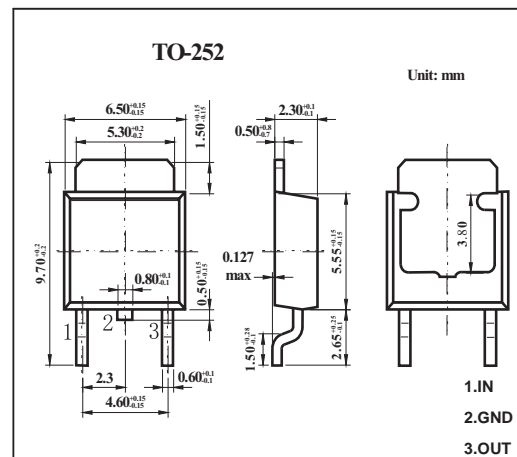
FEATURES

- Maximum output current IOM: 1.5 A
- Output voltage VO: 12 V
- Continuous total dissipation

$$P_D: 1.25 \text{ W} \quad (T_a = 25^\circ\text{C})$$

MECHANICAL DATA

- Case: TO-252 Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

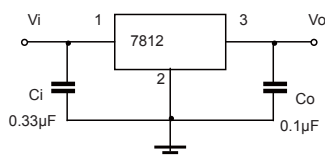
Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	°C/W
Operating Junction Temperature Range	T_{OPR}	-25~+125	°C
Storage Temperature Range	T_{STG}	-65~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE
($V_i=19\text{V}$, $I_o=500\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output Voltage	V_o		25°C	11.5	12.0	12.5	V
		$I_o=5\text{mA}-1\text{A}$, $14.5\text{V} \leq V_i \leq 27\text{V}$	-25-125°C	11.4	12.0	12.6	V
Load Regulation	ΔV_o	$14.5\text{V} \leq V_i \leq 30\text{V}$	25°C	10	240	mV	
		$16\text{V} \leq V_i \leq 22\text{V}$	25°C	3	120	mV	
Line Regulation	ΔV_o	$I_o=5\text{mA}-1.5\text{A}$	25°C	12	240	mV	
		$I_o=250\text{mA}-750\text{mA}$	25°C	4	120	mV	
Quiescent Current	I_q		25°C	4.3	8	mA	
Quiescent Current Change	ΔI_q	$5.0\text{mA} \leq I_o \leq 1.0\text{A}$	-25-125°C		0.5	mA	
		$14.5\text{V} \leq V_i \leq 30\text{V}$	-25-125°C		1.0	mA	
Output Voltage Drift	$\Delta V_o/\Delta T$	$I_o=5\text{mA}$	-25-125°C	-1		mV/°C	
Output Noise Voltage	V_N	$f=10\text{Hz}$ to 100KHz	25°C	75		$\mu\text{V}/V_o$	
Ripple Rejection	RR	$f=120\text{Hz}$, $15\text{V} \leq V_i \leq 25\text{V}$	-25-125°C	55	71	dB	
Dropout Voltage	V_d	$I_o=1.0\text{A}$	25°C	2		V	
Output Resistance	R_o	$f=1\text{KHz}$	-25-125°C	18		m Ω	
Short Circuit Current	I_{sc}		25°C	350		mA	
Peak Current	I_{pk}		25°C	2.2		A	

* Pulse test.

TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close possible to the as regulators.

RATINGS AND CHARACTERISTIC CURVES

TYPICAL APPLICATION

