

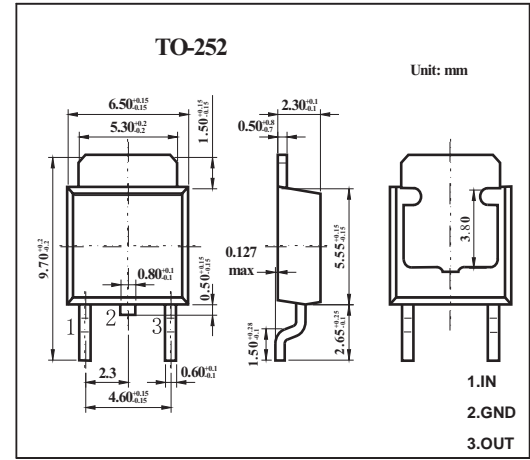
Three-terminal positive voltage regulator

FEATURES

- Maximum output current IOM: 1.5 A
- Output voltage VO: 12 V
- Continuoustotal dissipation  
 $P_D: 1.25 W \quad (T_a = 25^\circ C)$

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)

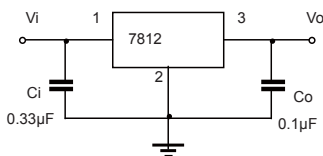
Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	°C/W
Operating Junction Temperature Range	$T_{OPR}$	-25~+125	°C
Storage Temperature Range	$T_{STG}$	-65~+150	°C

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

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

\* Pulse test.

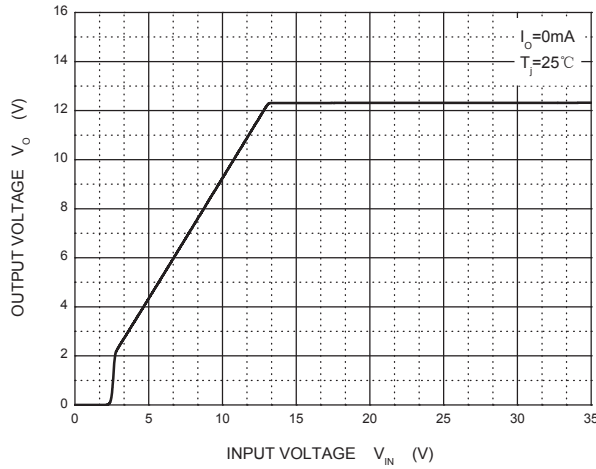
TYPICAL APPLICATION



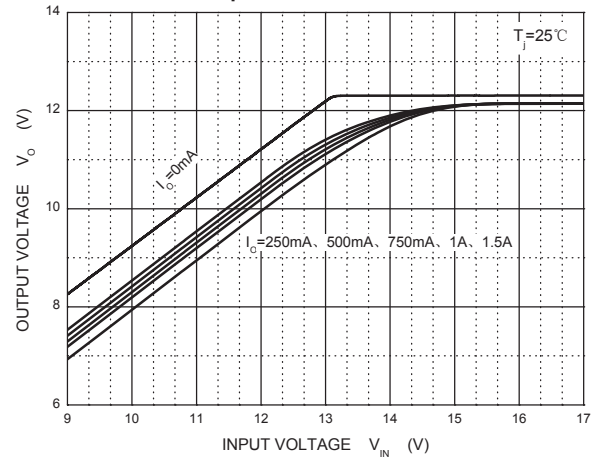
Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close possible to the as regulators.

## TYPICAL APPLICATION

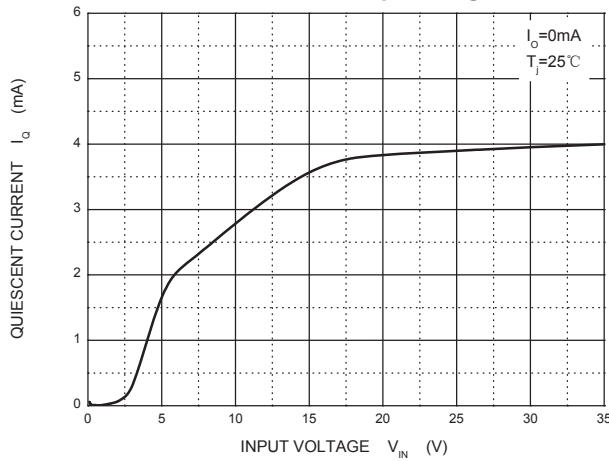
Output Characteristics



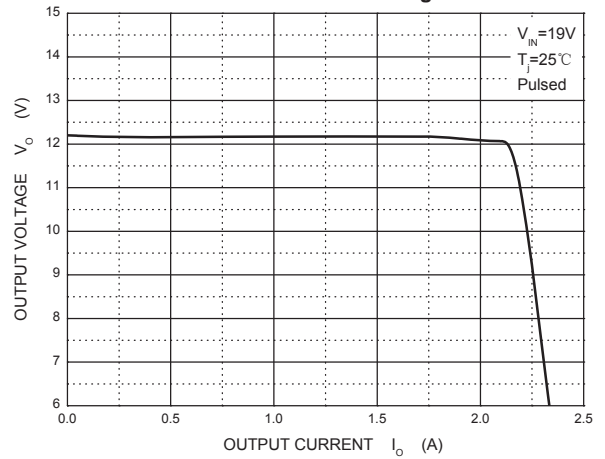
Dropout Characteristics



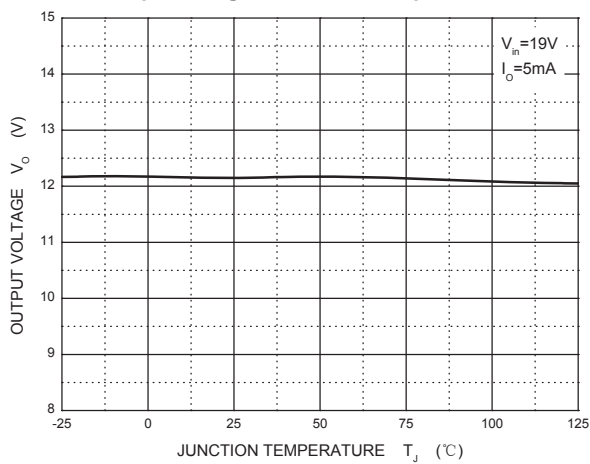
Quiescent Current vs Input Voltage



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve

