

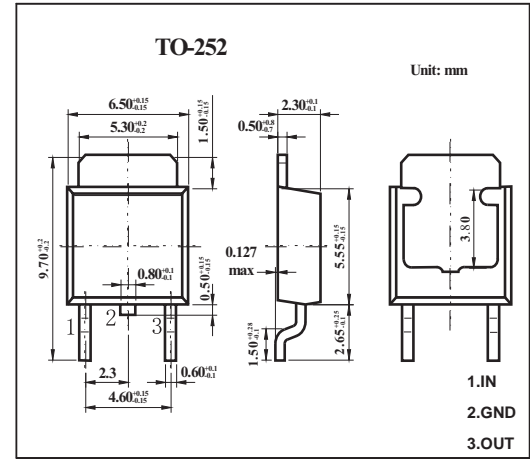
Three-terminal positive voltage regulator

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)

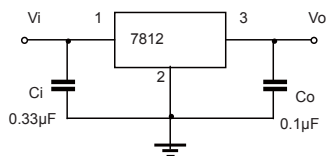
Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	°C/W
Operating Junction Temperature Range	T_{OPR}	-25~+125	°C
Storage Temperature Range	T_{STG}	-65~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE
 (Vi=19V, Io=500mA, Ci=0.33µF, Co=0.1µF, 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	V
Load Regulation	ΔV_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	ΔV_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	ΔI_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		µV/Vo
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.

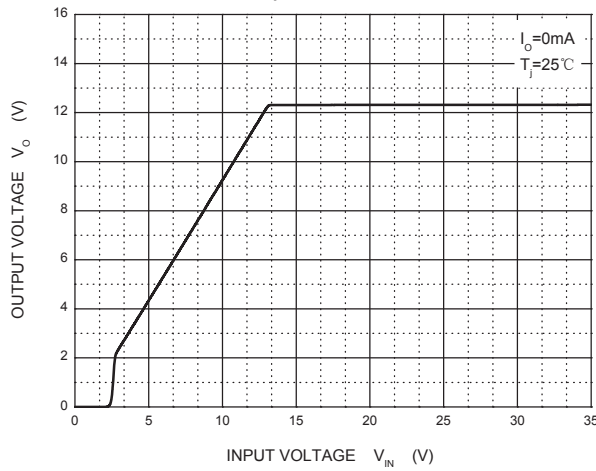
TYPICAL APPLICATION



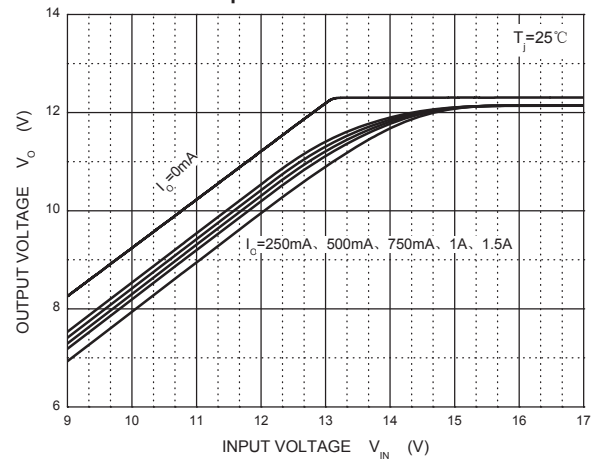
Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close possible to the as regulators.

TYPICAL APPLICATION

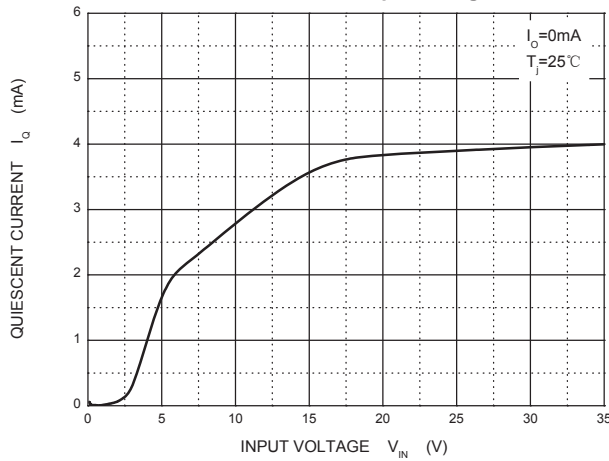
Output Characteristics



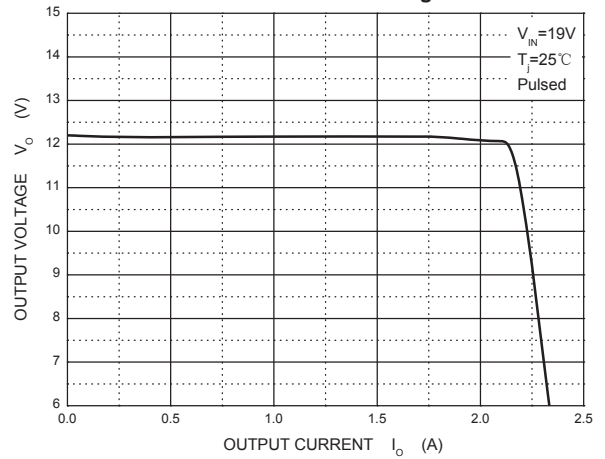
Dropout Characteristics



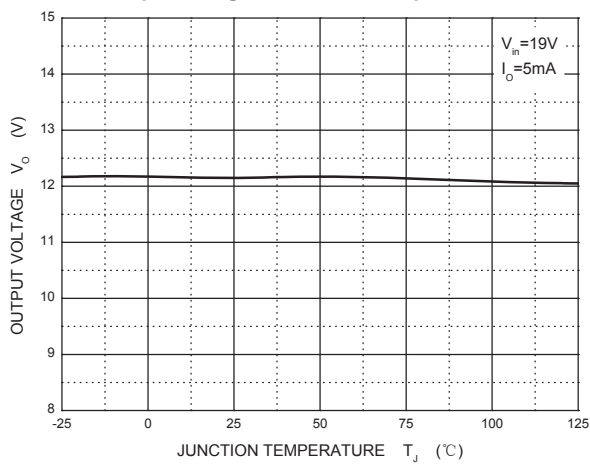
Quiescent Current vs Input Voltage



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve

