

Three-terminal positive voltage regulator

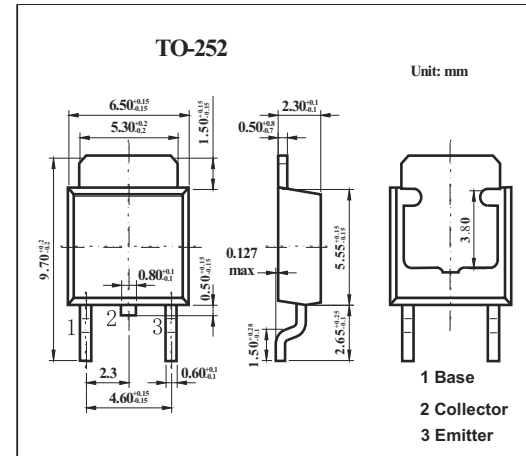
FEATURES

- Maximum output current IOM: 1.5 A
- Output voltage V_O : -15V
- Continuous total dissipation

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

MECHANICAL DATA

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



ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Thermal Resistance Junction-Air	$R_{\theta JA}$	100	$^\circ\text{C}/\text{W}$
Thermal Resistance Junction-Case	$R_{\theta JC}$	10	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_{OPR}	0~+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^\circ\text{C}$

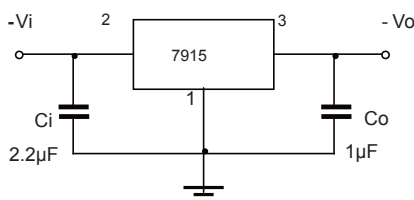
ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

($V_i = -23\text{V}$, $I_o = 500\text{mA}$, $C_i = 2.2\mu\text{F}$, $C_o = 1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_o	25°C	-14.4	-15	-15.6	V
		$-17.5\text{V} \leq V_i \leq -30\text{V}$, $I_o = 5\text{mA} - 1\text{A}$	0-125 $^\circ\text{C}$	-14.25	-15	-15.75
Load regulation	ΔV_o	$I_o = 5\text{mA} - 1.5\text{A}$	25°C	15	200	mV
		$I_o = 250\text{mA} - 750\text{mA}$	25°C	5	75	mV
Line regulation	ΔV_o	$-17.5\text{V} \leq V_i \leq -30\text{V}$	25°C	5	100	mV
		$-20\text{V} \leq V_i \leq -26\text{V}$	25°C	3	50	mV
Quiescent current	I_q	25°C		2	3	mA
Quiescent current change	ΔI_q	$-17.5\text{V} \leq V_i \leq -30\text{V}$	0-125 $^\circ\text{C}$		0.5	mA
		$5\text{mA} \leq I_o \leq 1\text{A}$	0-125 $^\circ\text{C}$		0.5	mA
Output noise voltage	V_N	10Hz $\leq f \leq$ 100KHz	25°C	375		$\mu\text{V}/V_o$
Output voltage drift	$\Delta V_o / \Delta T$	$I_o = 5\text{mA}$	0-125 $^\circ\text{C}$	-1		mV/ $^\circ\text{C}$
Ripple rejection	RR	$-18.5\text{V} \leq V_i \leq -28.5\text{V}$, $f = 120\text{Hz}$	0-125 $^\circ\text{C}$	54	60	dB
Dropout voltage	V_d	$I_o = 1\text{A}$	25°C	1.1		V
Peak current	I_{pk}	25°C		2.1		A
Short circuit current	I_{sc}	$V_i = -35\text{V}$	25°C	300		mA

* Pulse test.

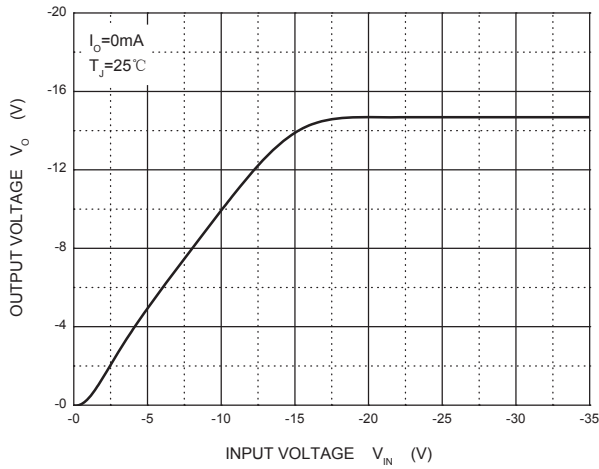
TYPICAL APPLICATION



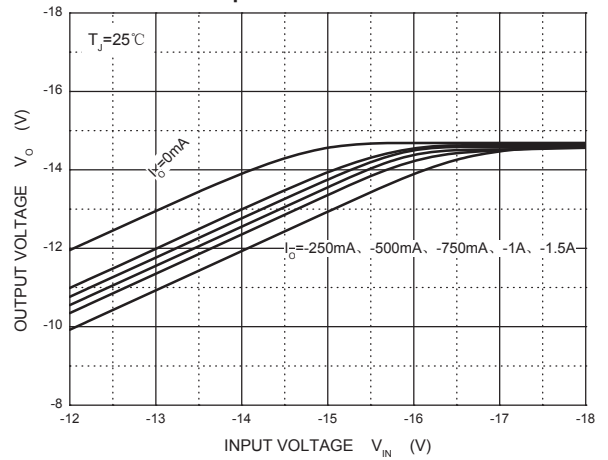
RATINGS AND CHARACTERISTIC CURVES

TYPICAL APPLICATION

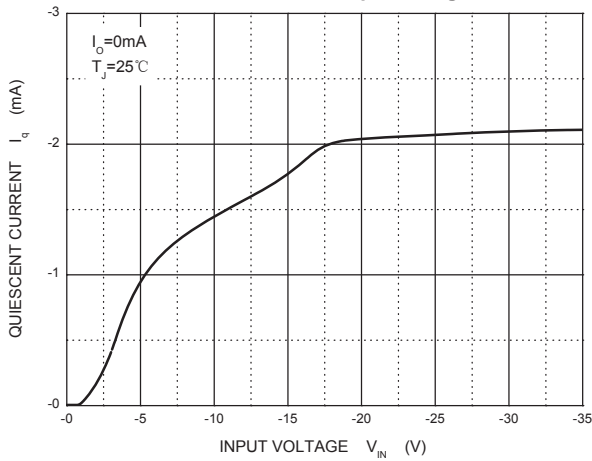
Output Characteristics



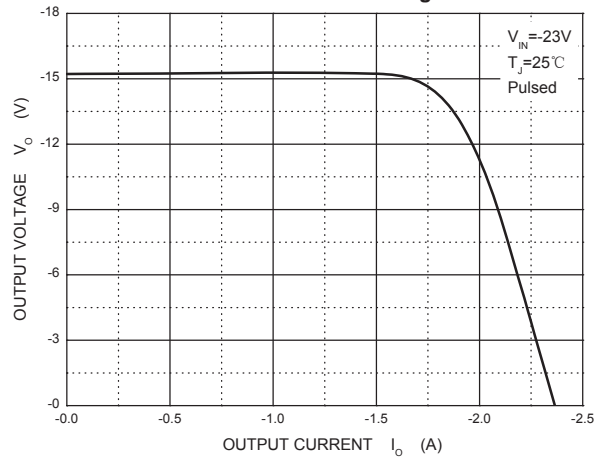
Dropout Characteristics



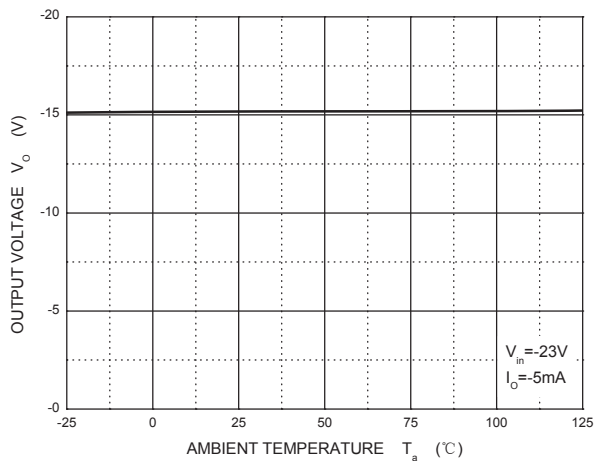
Quiescent Current vs Input Voltage



Current Cut-off Grid Voltage



Output Voltage vs Ambient Temperature



Power Derating Curve

