

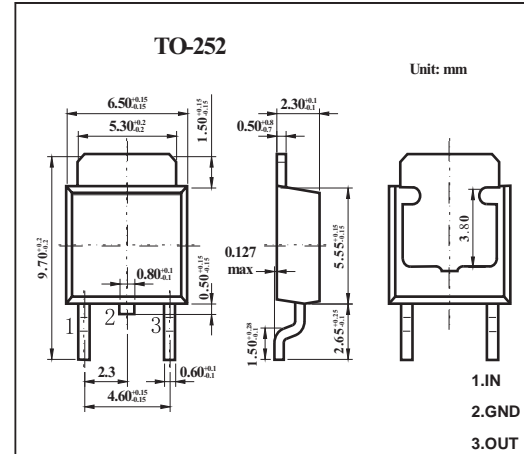
## Three-terminal positive voltage regulator

### FEATURES

- Maximum output current IOM: 1.5 A
- Output voltage VO: 15 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



### ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherwise specified)

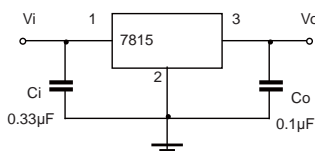
Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_{OPR}$	-25~+125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ( $V_i=23\text{V}, I_o=500\text{mA}, -25^\circ\text{C}$   
 $<T_J < 125^\circ\text{C}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$ , unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	$V_o$	$T_J=25^\circ\text{C}$	14.4	15	15.6	V
		$17.5\text{V} \leq V_i \leq 30\text{V}, I_o=5\text{mA}-1\text{A}, P \leq 15\text{W}$	14.25	15	15.75	V
Load Regulation	$\Delta V_o$	$T_J=25^\circ\text{C}, I_o=5\text{mA}-1.5\text{A}$		12	300	mV
		$T_J=25^\circ\text{C}, I_o=250\text{mA}-750\text{mA}$		3	150	mV
Line regulation	$\Delta V_o$	$17.5\text{V} \leq V_i \leq 30\text{V}, T_J=25^\circ\text{C}$		12	300	mV
		$20\text{V} \leq V_i \leq 26\text{V}, T_J=25^\circ\text{C}$		4	150	mV
Quiescent Current	$I_q$	$T_J=25^\circ\text{C}$		4.3	8	mA
Quiescent Current Change	$\Delta I_q$	$17.5\text{V} \leq V_i \leq 30\text{V}$			1	mA
	$\Delta I_q$	$5\text{mA} \leq I_o \leq 1\text{A}$			0.5	mA
Output voltage drift	$\Delta V_o/\Delta T$	$I_o=5\text{mA}$		-1		$\text{mV}/^\circ\text{C}$
Output Noise Voltage	$V_N$	$10\text{Hz} \leq f \leq 100\text{KHz}$		90		$\mu\text{V}/V_o$
Ripple Rejection	RR	$18.5\text{V} \leq V_i \leq 28.5\text{V}, f=120\text{Hz}, T_J=25^\circ\text{C}$	54	70		dB
Dropout Voltage	$V_d$	$T_J=25^\circ\text{C}, I_o=1\text{A}$		2		V
Output resistance	$R_o$	$f=1\text{KHz}$		19		$\text{m}\Omega$
Short Circuit Current	$I_{sc}$	$T_J=25^\circ\text{C}$		230		mA
Peak Current	$I_{pk}$	$T_J=25^\circ\text{C}$		2.1		A

\* Pulse test.

### TYPICAL APPLICATION



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



# RATINGS AND CHARACTERISTIC CURVES

## TYPICAL APPLICATION

