

TO-252 Three-terminal positive voltage regulator

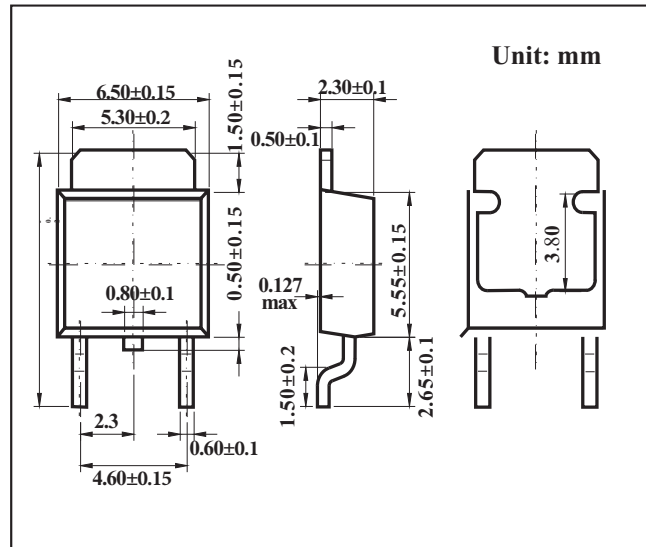
FEATURES

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

$$PD: 1.25 W \quad (T_a = 25^\circ C)$$

MECHANICAL DATA

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



ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherwise specified)

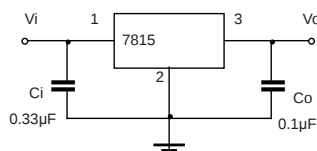
Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	$^\circ C/W$
Operating Junction Temperature Range	T_{OPR}	-25~+125	$^\circ C$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ C$

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

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

