

Three-terminal positive voltage regulator

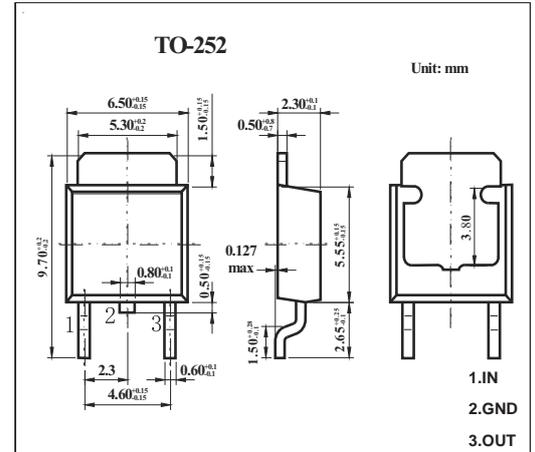
FEATURES

- Maximum output current IOM: 0.5 A
- Output voltage V_O : 15V
- Continuous total dissipation

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

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)

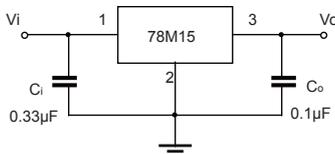
Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_{OPR}	-25~+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($V_i=23\text{V}$, $I_o=350\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output Voltage	V_o	$V_i=23\text{V}$, $I_o=350\text{mA}$	25 $^\circ\text{C}$	14.4	15	15.6	V
		$17.5\text{V} \leq V_i \leq 30\text{V}$, $I_o=5\text{mA} \sim 350\text{mA}$	-25-125 $^\circ\text{C}$	14.25	15	15.75	V
Load Regulation	ΔV_o	$I_o=5\text{mA} \sim 500\text{mA}$	25 $^\circ\text{C}$			300	mV
		$I_o=5\text{mA} \sim 200\text{mA}$	25 $^\circ\text{C}$			150	mV
Line Regulation	ΔV_o	$17.5\text{V} \leq V_i \leq 30\text{V}$, $I_o=200\text{mA}$	25 $^\circ\text{C}$			100	mV
		$20\text{V} \leq V_i \leq 26\text{V}$, $I_o=200\text{mA}$	25 $^\circ\text{C}$			50	mV
Quiescent Current	I_q	$V_i=23\text{V}$, $I_o=350\text{mA}$	25 $^\circ\text{C}$		6	mA	
Quiescent Current Change	ΔI_q	$17.5\text{V} \leq V_i \leq 30\text{V}$, $I_o=200\text{mA}$	-25-125 $^\circ\text{C}$			0.8	mA
	ΔI_q	$V_i=23\text{V}$, $I_o=5\text{mA} \sim 350\text{mA}$	-25-125 $^\circ\text{C}$			0.5	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$	25 $^\circ\text{C}$	90		$\mu\text{V}/V_o$	
Ripple Rejection	RR	$18.5\text{V} \leq V_i \leq 28.5\text{V}$, $f=120\text{Hz}$, $I_o=300\text{mA}$	-25-125 $^\circ\text{C}$	54		dB	
Dropout Voltage	V_d		25 $^\circ\text{C}$	2		V	

* 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 Characteristics

