

## Three-terminal positive voltage regulator

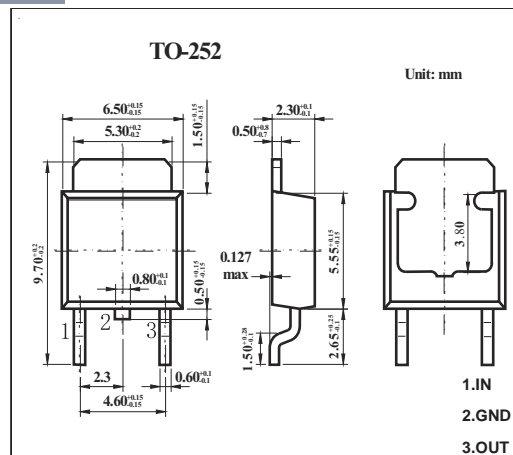
### FEATURES

- Maximum output current IOM: 0.5 A
- Output voltage VO: 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)

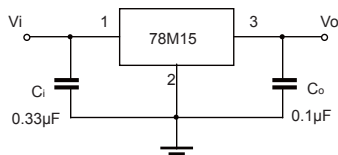
Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_{OPR}$	-25~+125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ\text{C}$

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	$\Delta V_o$	$I_o=5\text{mA}\sim 500\text{mA}$	25 $^\circ\text{C}$			300	mV
		$I_o=5\text{mA}\sim 200\text{mA}$	25 $^\circ\text{C}$			150	mV
Line Regulation	$\Delta V_o$	$17.5\text{V}\leq V_i\leq 30\text{V}$ , $I_o=200\text{mA}$	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	$\Delta I_q$	$17.5\text{V}\leq V_i\leq 30\text{V}$ , $I_o=200\text{mA}$	-25-125 $^\circ\text{C}$			0.8	mA
	$\Delta I_q$	$V_i=23\text{V}$ , $I_o=5\text{mA}\sim 350\text{mA}$	-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

