

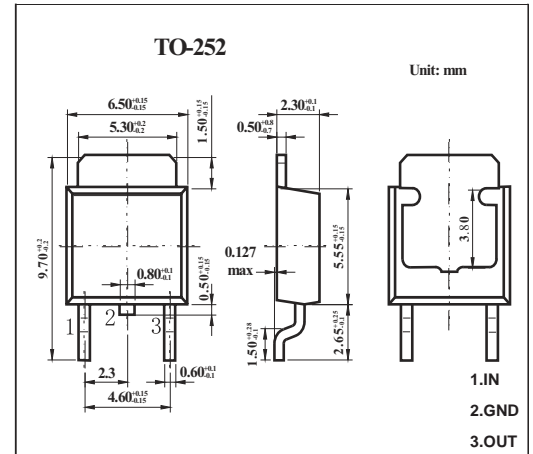
Three-terminal positive voltage regulator

**FEATURES**

- Maximum output current IOM:1.5 A
- Output voltage VO: 8V
- Continuous total dissipation PD: 1.5W

**MECHANICAL DATA**

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



**MAXIMUM RATINGS AND CHARACTERISTICS**

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	66.7	°C/W
Operating Junction Temperature Range	$T_{OPR}$	-25~+125	°C
Storage Temperature Range	$T_{STG}$	-65~+150	°C

**ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE**

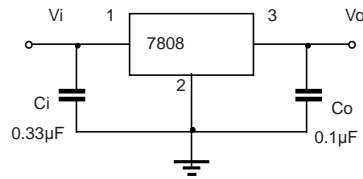
( $V_i=14V, I_o=500mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified )

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output Voltage	$V_o$	25°C	7.7	8	8.3	V	
		10.5V≤ $V_i$ ≤23V, $I_o=5mA-1A$	-25-125°C	7.6	8	8.4	V
Load Regulation	$\Delta V_o$	$I_o=5mA-1.5A$	25°C		12	160	mV
		$I_o=250mA-750mA$	25°C		4	80	mV
Line Regulation	$\Delta V_o$	10.5V≤ $V_i$ ≤25V	25°C		6	160	mV
		11V≤ $V_i$ ≤17V	25°C		2	80	mV
Quiescent Current	$I_q$	25°C		4.3	8	mA	
Quiescent Current Change	$\Delta I_q$	10.5V≤ $V_i$ ≤25V	-25-125°C			1	mA
		5mA≤ $I_o$ ≤1A	-25-125°C			0.5	mA
Output Voltage Drift	$\Delta V_o/\Delta T$	$I_o=5mA$	-25-125°C		-0.8	mV/°C	
Output Noise Voltage	$V_N$	10Hz≤f≤100KHz	25°C		52	μV/ $V_o$	
Ripple Rejection	RR	11.5V≤ $V_i$ ≤21.5V, f=120Hz	-25-125°C	55	72	dB	
Dropout Voltage	$V_d$	$I_o=1A$	25°C		2	V	
Output Resistance	$R_o$	f=1KHz	25°C		10	mΩ	
Short Circuit Current	$I_{sc}$	25°C		450		mA	
Peak Current	$I_{pk}$	25°C		2.2		A	

\* Pulse test.

# RATINGS AND CHARACTERISTIC CURVES

## TYPICAL APPLICATION



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

