

THREE-TERMINAL POSITIVE VOLTAGE REGULATOR

FEATURES

Maximum output current

$$I_{OM} : 1.5A$$

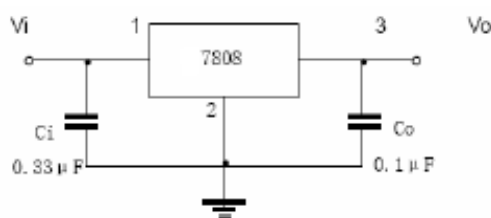
Output voltage

$$V_O : 8 V$$

Continuous total dissipation

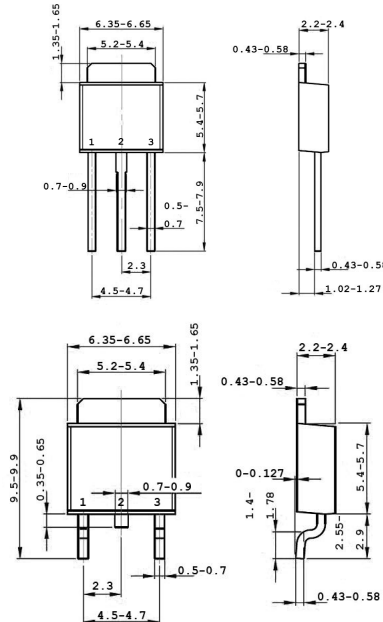
$$P_D : 1.25W$$

Typical Application



TO-251 TO-252-2L

1. IN
2. GND
3. OUT



ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameters	Symbols	Value	UNITS
Input Voltage	V_I	35	V
Operating Junction Temperature Range	T_{OPR}	0~+150	°C
Storage Temperature Range	T_{STG}	-65~+150	°C

ELECTRICAL CHARACTERISTICS

($V_I=14V$, $I_O=500mA$, $0^\circ C < T_J < 125^\circ C$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, unless otherwise specified)

Parameters	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output Voltage	V_O	$T_J=25^\circ C$	7.7	8	8.3	V
		$10.5V \leq V_I \leq 23V$, $I_O=5mA-1A$, $P \leq 15W$	7.6	8	8.4	V
Load Regulation	ΔV_O	$T_J=25^\circ C$, $I_O=5mA-1.5A$		12	160	mV
		$T_J=25^\circ C$, $I_O=250mA-750mA$		4	80	mV
Line Regulation	ΔV_O	$10.5V \leq V_I \leq 25V$, $T_J=25^\circ C$		6	160	mV
		$11V \leq V_I \leq 17V$, $T_J=25^\circ C$		2	80	mV
Quiescent Current	I_q	$T_J=25^\circ C$		4.3	8	mA
Quiescent Current Change	ΔI_q	$10.5V \leq V_I \leq 25V$			1	mA
	ΔI_q	$5mA \leq I_O \leq 1A$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		52		μV
Ripple Rejection	RR	$11.5V \leq V_I \leq 21.5V$, $f=120Hz$, $T_J=25^\circ C$	55	72		dB
Dropout Voltage	V_d	$T_J=25^\circ C$, $I_O=1A$		2		V
Short Circuit Current	I_{sc}	$V_I=35V$, $T_J=25^\circ C$		450		mA
Peak Current	I_{pk}	$T_J=25^\circ C$		2.2		A