

THREE-TERMINAL POSITIVE VOLTAGE REGULATOR

FEATURES

Maximum output current

$$I_{OM} : 1.5A$$

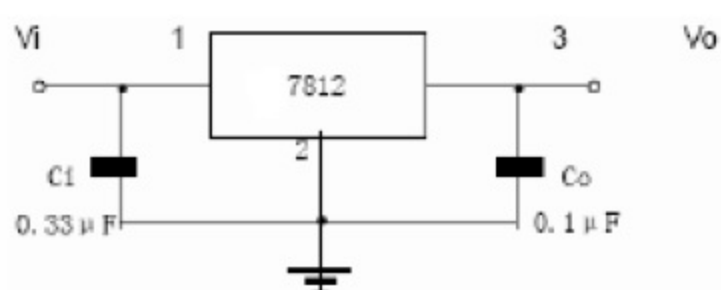
Output voltage

$$V_O : 12 V$$

Continuous total dissipation

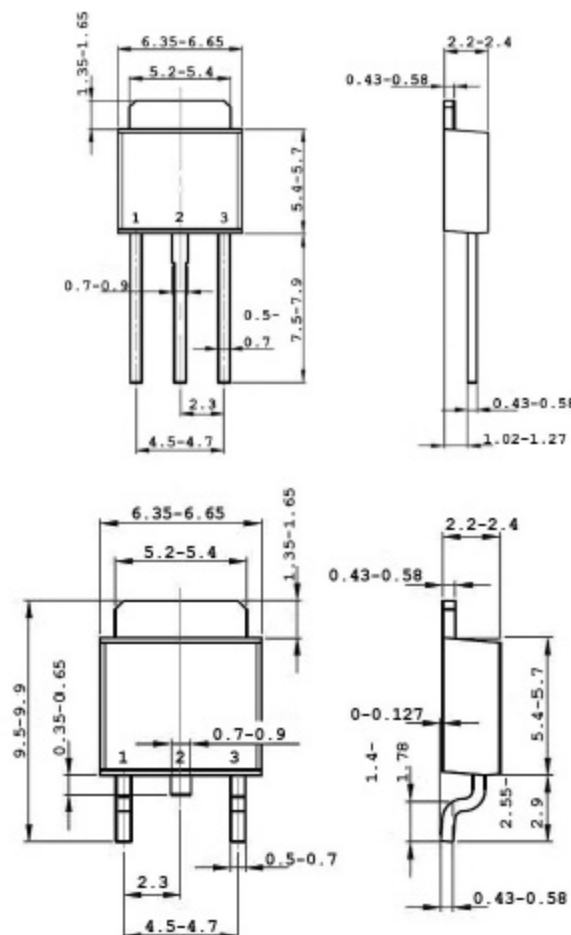
$$P_D : 1.25W$$

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

($V_I=19V$, $I_O=500mA$, $0^\circ C < T_J < 125^\circ C$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, unless otherwise specified)

Parameters	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output Voltage	V_O	$T_J=25^\circ C$	11.5	12.0	12.5	V
		$14.5V \leq V_I \leq 27V$, $I_O=5mA-1A$, $P < 15W$	11.4	12	12.6	V
Load Regulation	ΔV_O	$T_J=25^\circ C$, $14.5V \leq V_I \leq 30V$		10	240	mV
		$T_J=25^\circ C$, $16V \leq V_I \leq 22V$		3	120	mV
Line Regulation	ΔV_O	$T_J=25^\circ C$, $I_O=5mA-1.5A$		12	240	mV
		$T_J=25^\circ C$, $I_O=250mA-750mA$		4.0	120	mV
Quiescent Current	I_q	$T_J=25^\circ C$		4.3	8	mA
Quiescent Current Change	ΔI_q	$5.0mA \leq I_O \leq 1.0A$			0.5	mA
		$14.5V \leq V_I \leq 30V$			1.0	mA
Output Noise Voltage	V_N	$f=10Hz$ to $100KHz$, $T_J=25^\circ C$		75		μV
Ripple Rejection	RR	$15V \leq V_I \leq 25V$, $f=120Hz$	55	71		dB
Dropout Voltage	V_d	$T_J=25^\circ C$, $I_O=1.0A$		2		V
Output Resistance	R_o	$f=1KHz$		18		m Ω
Short Circuit Current	I_{sc}	$V_I=35V$, $T_J=25^\circ C$		350		mA
Peak Current	I_{pk}	$T_J=25^\circ C$		2.2		A