

TP79M12K3

0.5A Fixed Voltage Regulators

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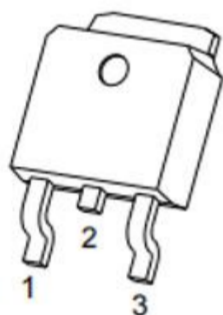
Features

- 3-Terminal regulators
- Maximum Output current 0.5A
- Output voltage V_o : - 12V
- Compact package: TO-252-2L

Applications

- HVAC Systems
- SMPS Post Regulation
- Test and Measurement Equipment
- Industrial Power Supplies

PIN CONFIGURATION



1.GND
2.VIN
3.OUT

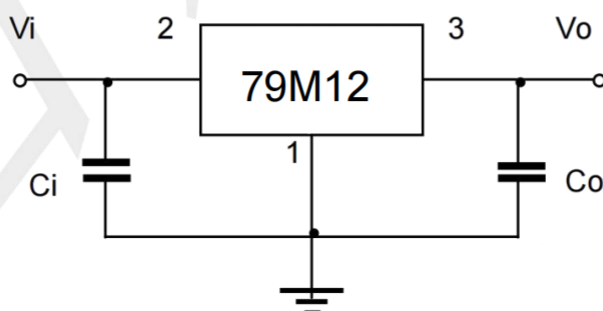
Pin Number	Pin Name	Pin Function
1	GND	Ground
2	VIN	Input of Supply Voltage
3	VOUT	Output of the Regulator

Absolute Maximum Ratings

over operating free-air temperature range (unless otherwise noted)

Symbol	Parameter	Rating	UNIT
VIN	Input voltage	-35	V
R _{θJA}	Thermal Resistance Junction-ambient to Air	80	°C/W
PD	Continuous total dissipation (Ta= 25 °C)	1.25	W
T _{OPR}	Operating Junction Temperature Range	-40~+125	°C
T _{stg}	Storage temperature range	-65~+150	°C

TYPICAL APPLICATION



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Electrical Characteristics

($V_i = -14V$, $I_o = 500mA$, $C_i = 2.2\mu F$, $C_o = 1\mu F$, unless otherwise specified)

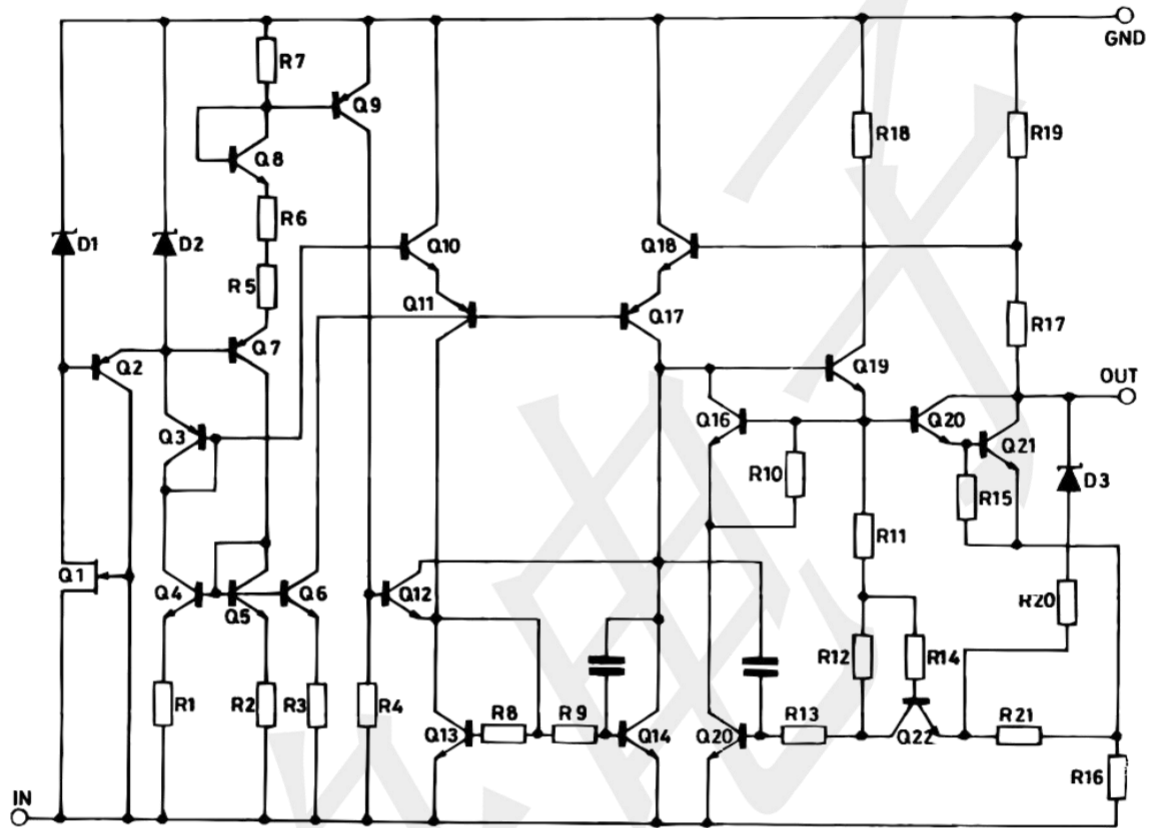
AMETER	SYMBOL	TEST Conditions	MIN	TYP	MAX	UNIT
DC Output Voltage	VO	$T_j = 25^\circ C$	-11.64	-12	-12.36	V
		0-125°C $-14.5V \leq V_i \leq -27V$, $I_o = 5mA-350mA$	-11.4	-12	-12.6	V
Load Regulation	ΔV_o	$T_j = 25^\circ C$ $I_o = 5mA-0.5A$	--	--	250	mV
		$T_j = 25^\circ C$ $I_o = 5mA-200mA$	--	--	120	mV
Line regulation	ΔV_o	$T_j = 25^\circ C$ $-14.5V \leq V_i \leq -30V$, $I_o = 200mA$	--	--	250	mV
		$T_j = 25^\circ C$ $-16V \leq V_i \leq -22V$, $I_o = 200mA$	--	--	120	mV
Quiescent Current	I_q	$T_j = 25^\circ C$	--	1.5	5.0	mA
Quiescent Current Change	ΔI_q	0-125°C $-14.5V \leq V_i \leq -30V$, $I_o = 200mA$	--	--	1.0	mA
		0-125°C $5mA \leq I_o \leq 350mA$	--	--	0.5	mA
Output Voltage Drift	$\Delta V_o / \Delta T$	$I_o = 5mA$	--	-0.8	--	mV/°C
Output Noise Voltage	V_N	$T_j = 25^\circ C$ $10Hz \leq f \leq 100KHz$	--	200	--	$\mu V/V_o$
Ripple Rejection	RR	$-15V \leq V_i \leq -25V$ $I_o = 350mA$, $f = 120Hz$	--	60	--	dB
Dropout Voltage	V_d	$I_o = 350mA$, $T_j = 25^\circ C$	--	2.0	--	V
Peak Current	I_{pk}	$T_j = 25^\circ C$	--	0.5	--	A

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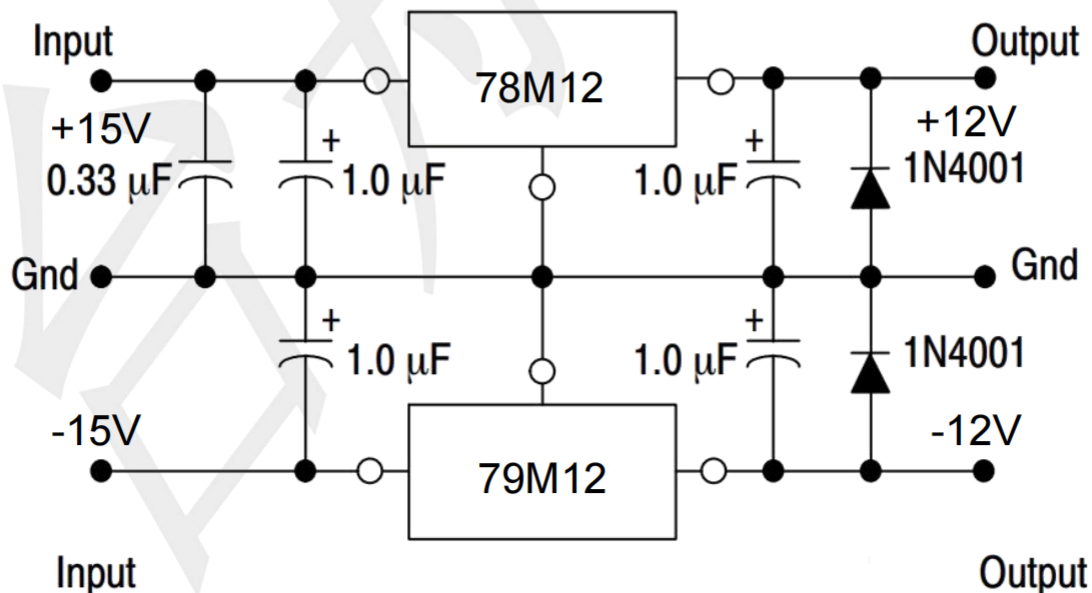
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Schematic diagram



Typical Application Circuit

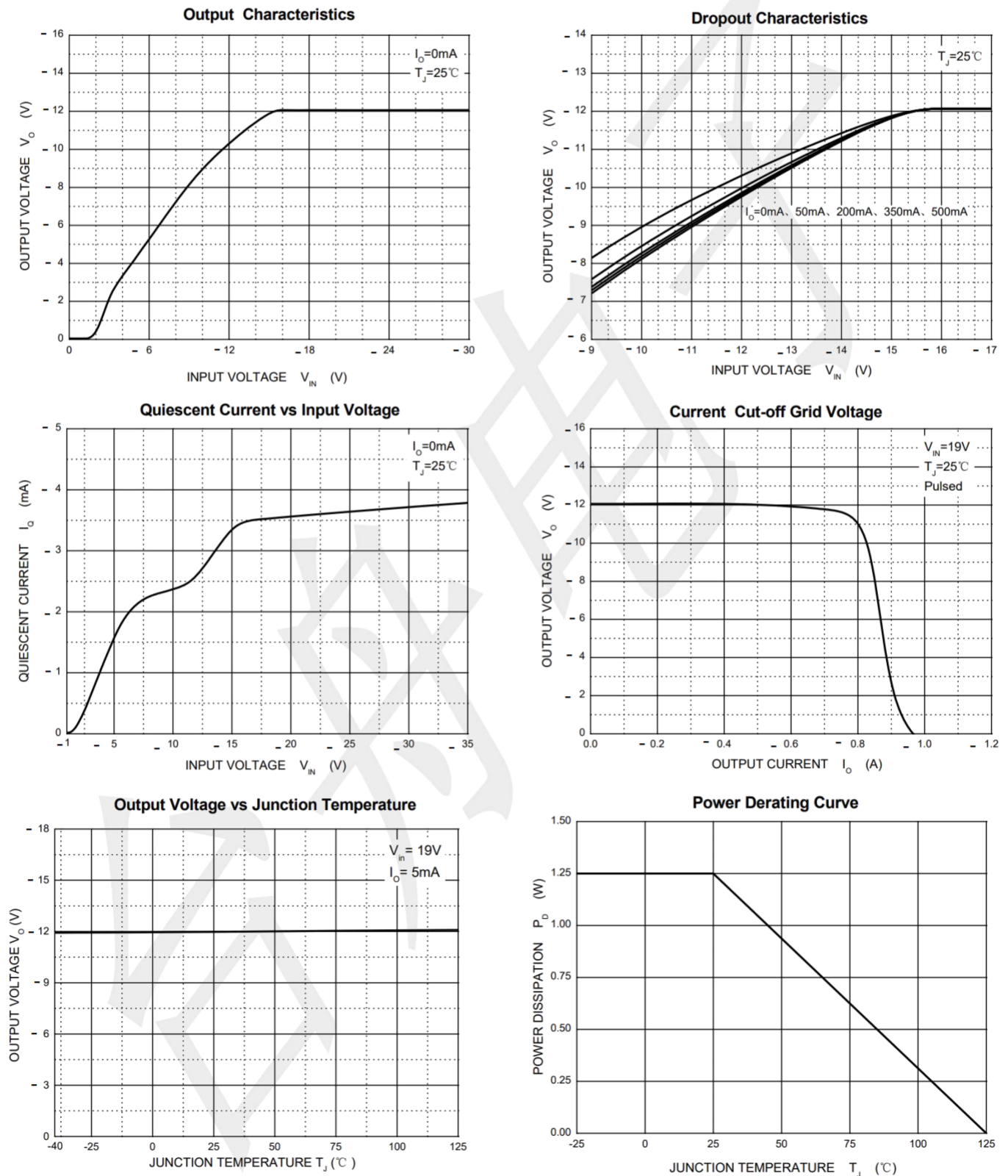


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Typical Operating Characteristics (25 °C, unless otherwise noted)



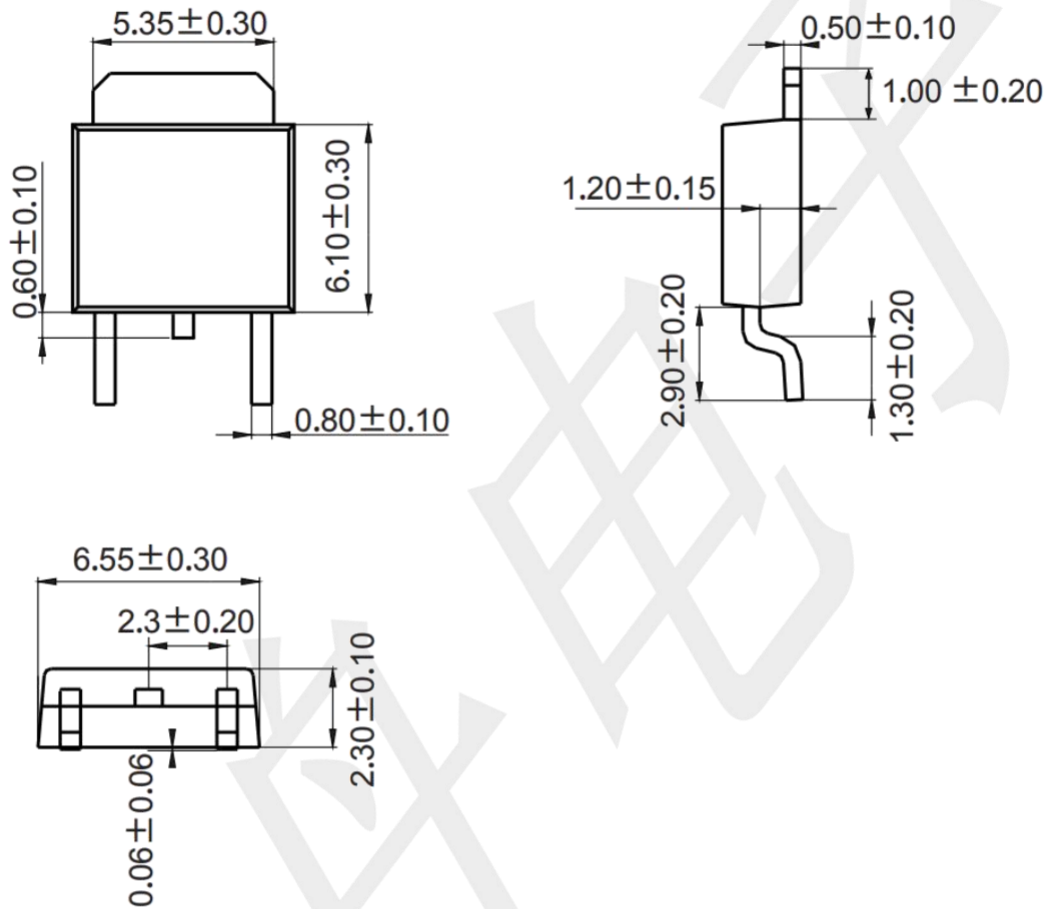
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Package Outline Dimensions (unit: mm)

TO-252-2L



Mounting Pad Layout (unit: mm)

