



## 79DXXAA

## LINEAR INTEGRATED CIRCUIT

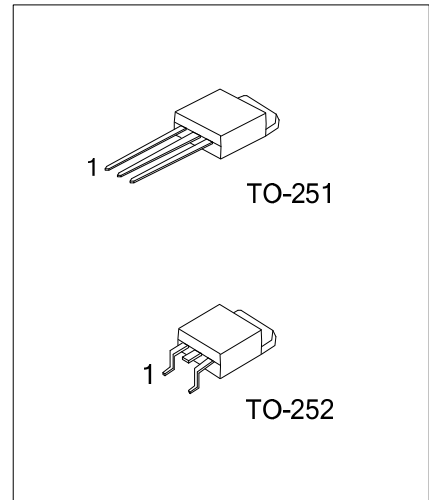
### 3 TERMINAL 1.5A NEGATIVE VOLTAGE REGULATOR

#### DESCRIPTION

The UTC **79DXXAA** series of three-terminal negative regulators is available several fixed output voltage, making them useful in a wide range of application. Each type employs internal current limiting, thermal shut-down, making it essentially indestructible.

#### FEATURES

- \* Output current up to 1.5A
- \* -5V, -12V output voltage available
- \* Thermal overload protection



#### NORDERING INFORMATIO

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
79DXXAAL-TM3-T	79DXXAAG-TM3-T	TO-251	G	I	O	Tube
79DXXAAL-TN3-T	79DXXAAG-TN3-T	TO-252	G	I	O	Tube
79DXXAAL-TN3-R	79DXXAAG-TN3-R	TO-252	G	I	O	Tape Reel

Note: Pin Assignment : G: GND I: Input O: Output

<p>79DXXAAL-TM3-T</p> <p>(1)Packing Type (2)Package Type (3)Lead Plating (4)Output Voltage Code</p>	<p>(1) T: Tube, R: Tape Reel (2) TM3: TO-251, TN3: TO-252 (3) L: Lead Free, G: Halogen Free (4) xx: refer to Marking Information</p>
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### MARKING INFORMATION

PACKAGE	VOLTAGE CODE	MARKING
TO-251 TO-252	05: -5V 12: -12V	

### BLOCK DIAGRAM

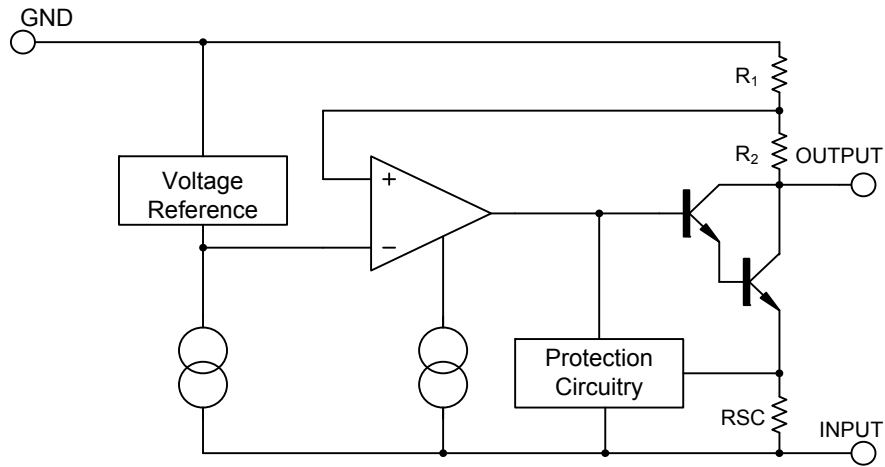


Fig.1

■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Input Voltage	V <sub>IN</sub>	-35	V
Output Current	I <sub>OUT</sub>	1.5	A
Power Dissipation	P <sub>D</sub>	Internally Limited	W
Operating Temperature	T <sub>OPR</sub>	0 ~ +125	°C
Storage Temperature	T <sub>STG</sub>	-65 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER	SYMBOL	RATING	UNIT
Junction to Ambient	θ <sub>JA</sub>	112	°C/W
Junction to Case	θ <sub>JC</sub>	12.5	°C/W

■ ELECTRICAL CHARACTERISTICS

(I<sub>OUT</sub>=0.5A, T<sub>J</sub>=0°C~125°C, C<sub>I</sub>=2.2μF, C<sub>O</sub>=1μF, unless otherwise specified)

For UTC 79D05AA (V<sub>IN</sub>=-10V)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Output Voltage	V <sub>OUT</sub>	T <sub>J</sub> =25°C	-4.80	-5.0	-5.20	V
		V <sub>IN</sub> =-7V~-20V I <sub>OUT</sub> =5mA~1.5A, P <sub>D</sub> ≤15W	-4.75		-5.25	V
Dropout Voltage	V <sub>D</sub>	I <sub>OUT</sub> =1.5A T <sub>J</sub> =25°C		2		V
Line Regulation	ΔV <sub>OUT</sub>	V <sub>IN</sub> =-7V~-25V T <sub>J</sub> =25°C		10	100	mV
		V <sub>IN</sub> =-8V~-12V T <sub>J</sub> =25°C		4	50	mV
Load Regulation	ΔV <sub>OUT</sub>	I <sub>OUT</sub> =5mA~1.5A T <sub>J</sub> =25°C		10	100	mV
		I <sub>OUT</sub> =250mA~750mA T <sub>J</sub> =25°C		3	50	mV
Quiescent Current	I <sub>Q</sub>	T <sub>J</sub> =25°C		3	6	mA
Output Noise Voltage	eN	f=10Hz~100kHz T <sub>A</sub> =25°C		100		μV
Output Voltage Drift	ΔV <sub>OUT</sub> /ΔT	I <sub>OUT</sub> =5mA		-0.4		mV/°C
Ripple Rejection	RR	V <sub>IN</sub> =-8V~-18V, f=120Hz	54	60		dB
Peak Current	I <sub>PEAK</sub>	T <sub>J</sub> =25°C		2.2		A

For UTC 79D12AA (V<sub>IN</sub>=-18V)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Output Voltage	V <sub>OUT</sub>	T <sub>J</sub> =25°C	-11.52	-12.0	-12.48	V
		V <sub>IN</sub> =-14.5V~-27V, I <sub>OUT</sub> =5mA~1.5A, P <sub>D</sub> ≤15W	-11.40		-12.60	V
Dropout Voltage	V <sub>D</sub>	I <sub>OUT</sub> =1.5A T <sub>J</sub> =25°C		2		V
Line Regulation	ΔV <sub>OUT</sub>	V <sub>IN</sub> =-14.5V~-30V T <sub>J</sub> =25°C		12	240	mV
		V <sub>IN</sub> =-16V~-22V T <sub>J</sub> =25°C		6	120	mV
Load Regulation	ΔV <sub>OUT</sub>	I <sub>OUT</sub> =5mA~1.5A T <sub>J</sub> =25°C		12	240	mV
		I <sub>OUT</sub> =250mA~750mA T <sub>J</sub> =25°C		4	120	mV
Quiescent Current	I <sub>Q</sub>	T <sub>J</sub> =25°C		3	6	mA
Output Noise Voltage	eN	f=10Hz~100kHz T <sub>a</sub> =25°C		200		μV
Output Voltage Drift	ΔV <sub>OUT</sub> /ΔT	I <sub>OUT</sub> =5mA		-0.8		mV/°C
Ripple Rejection	RR	V <sub>IN</sub> =-15V~-25V, f=120Hz	54	60		dB
Peak Current	I <sub>PEAK</sub>	T <sub>J</sub> =25°C		2.2		A

■ APPLICATION CIRCUITS

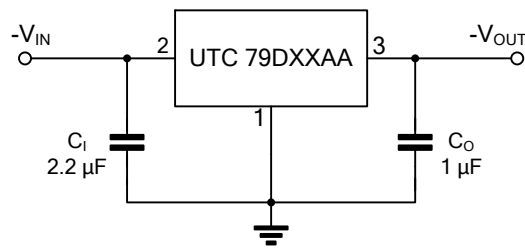


Fig.1 Fixed output regulator

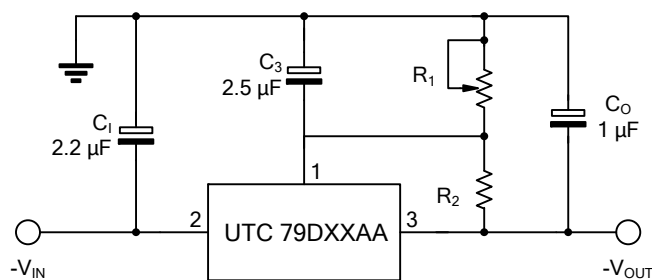


Fig.2 Circuit for increasing output voltage

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