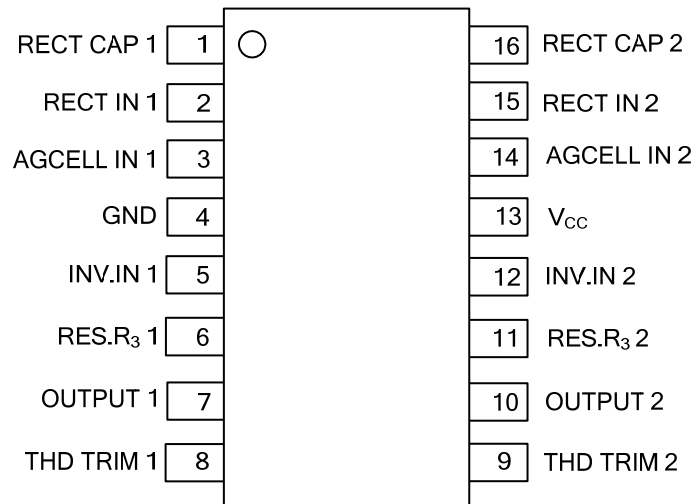
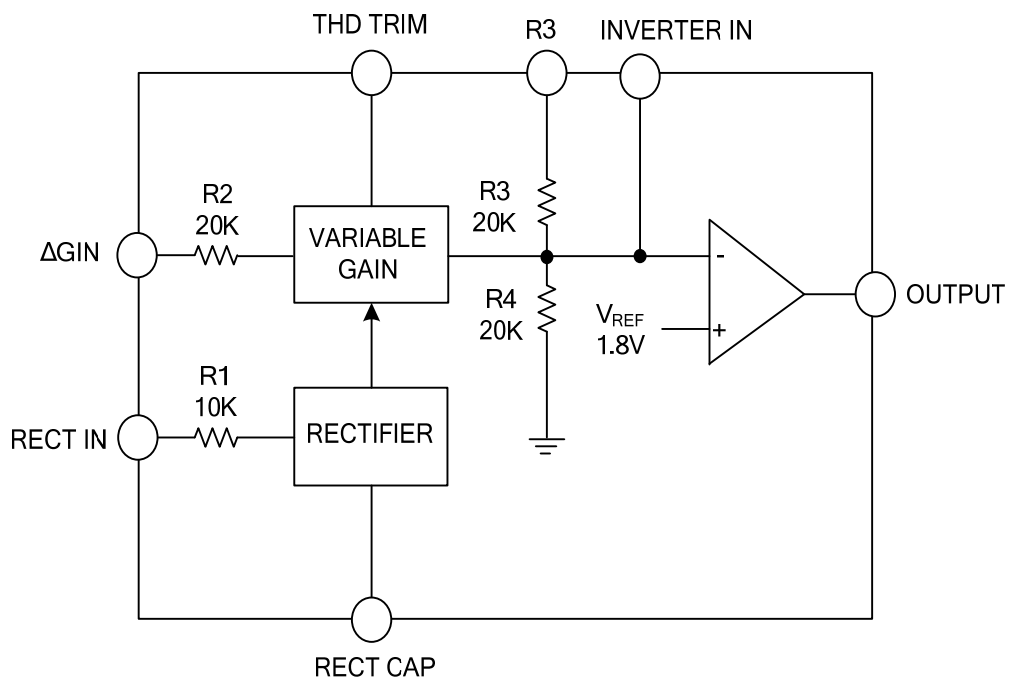




### ■ PIN CONNECTIONS



### ■ BLOCK DIAGRAM



### ■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNITS
Operating Voltage		$V_{CC}$	18	V
Power Dissipation	SOP-16	$P_D$	400	mW
	SOP-16(W)		625	
Junction Temperature		$T_J$	+150	$^\circ\text{C}$
Operating Temperature		$T_{OPR}$	-20 ~ +85	$^\circ\text{C}$

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	RATINGS	UNIT
Junction to Ambient	SOP-16	$\theta_{JA}$	130	$^\circ\text{C/W}$
	SOP-16(W)		105	

### ■ AC ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ , $V_{CC}=+5\text{V}$ , unless otherwise specified)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Supply Voltage	$V_{CC}$		6		18	V
Supply Current	$I_{CC}$	No signal		3.2	4.8	mA
Output Current capability	$I_{OUT}$		20			
Output Slew Rate	SR			0.5		V/ $\mu\text{s}$
Gsin Cell Distortion		Untrimmed		0.5	2.0	%
		Trimmed		0.1		
Resister Tolerance				5	15	%
Internal Reference Voltage			1.7	1.85	2.0	V
Output DC Shift (Note 3)		Untrimmed		30	150	mV
Expandor Output Noise		No signal, 15Hz-20kHz (Note 1)		20	60	V
Unity Gain Level (Note 5)		1kHz	-1.5	0	+1.5	dBm
Gain Change (Note 2,4)				0.1		dB
Reference Drift (Note 4)				+2,-25	+20,-50	mV
Resistor Drift (Note 4)				+8,-0		%
Tracking Error(measured relative to value at unity gain) Equals $[V_{OUT}-V_{OUT}(\text{unity gain})]$ dB-V2dBm		Rectifier input,	V2=+6dBm, V1=0dB	+0.2	-1,+1.5	dB
			V2=-30dBm, V1=0dB	+0.2		
Channel Separation				60		dB

Note: 1. Input to V1 and V2 grounded.

2. Measured at 0dBm, 1kHz.

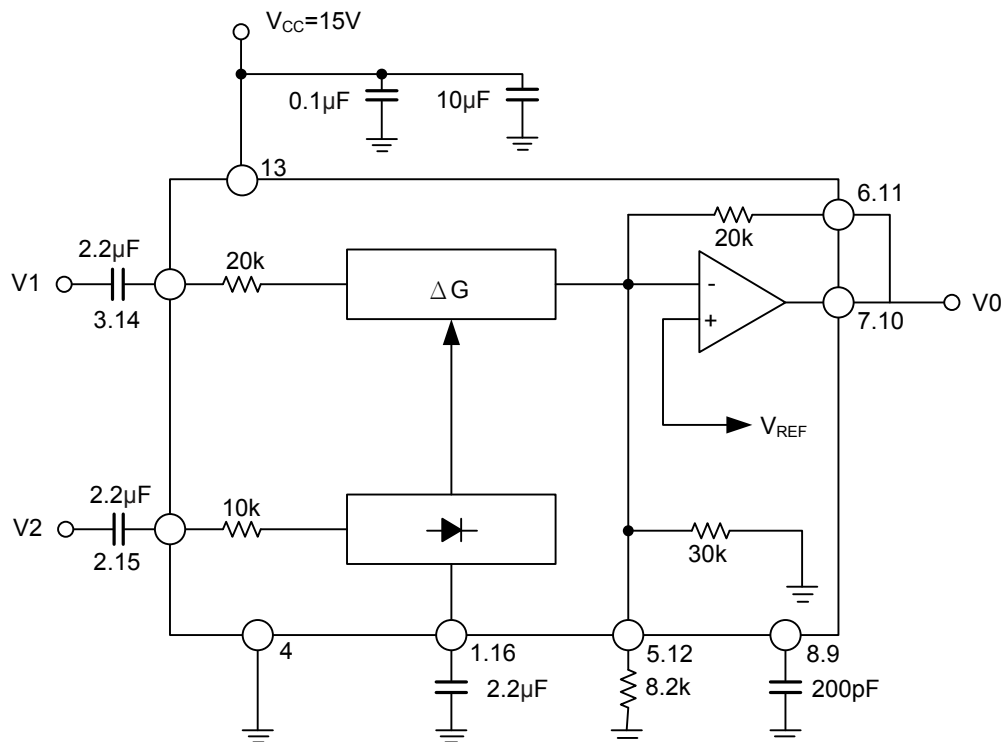
3. Expandor AC input change from no signal to 0dBm.

4. Relative to value at  $T_A = 25^\circ\text{C}$ .

5. 0dBm = 775mV RMS.

6. Electrical characteristics for the **UTC571N** only are specified over -20 to +85 $^\circ\text{C}$  temperature range.

### ■ TYPICAL APPLICATION CIRCUIT



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