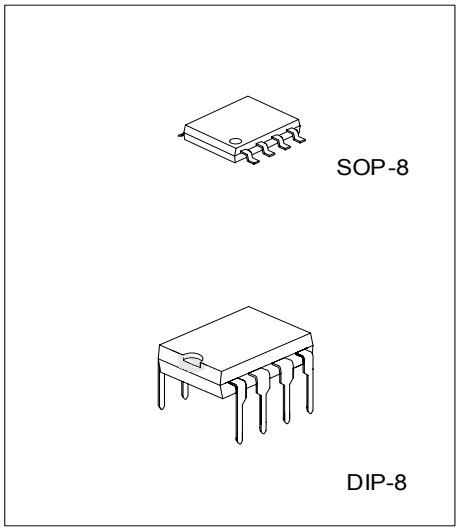
A2804 *LINEAR INTEGRATED CIRCUIT*

ZERO VOLTAGE SWITCH



*Pb-free plating product number: A2804L

■ DESCRIPTION

The UTC A2804 is a TRIAC controller providing a complete solution for temperature controlled electric panel heaters, cookers, film processing baths etc.

Switching occurs at the zero voltage point in order to minimize radio frequency interference. The device is suitable for mains-on-line operation and requires minimal components.

■ FEATURES

*Easy operation either through the AC line or a DC supply.
*Supply voltage control.
*Very few external components.
*Symmetrical burst control-No DC current components in the load circuit
*Negative output current pulse up to 250mA-short circuit protection.
*Reference voltage output

■ ORDERING INFORMATION

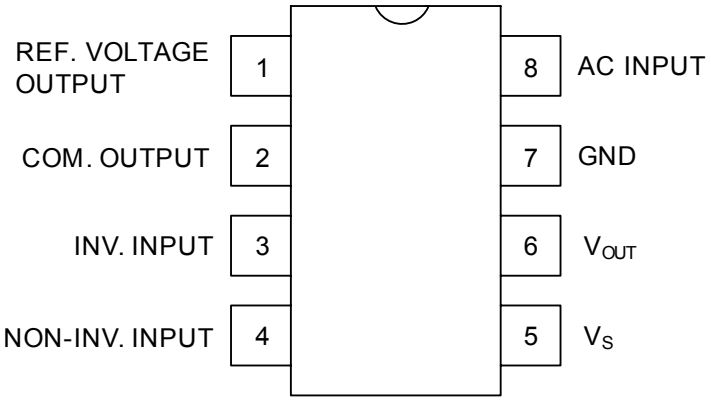
Ordering Number		Package	Packing
Normal	Lead Free Plating		
A2804-D08-T	A2804L-D08-T	DIP-8	Tube
A2804-S08-R	A2804L-S08-R	SOP-8	Tape Reel
A2804-S08-T	A2804L-S08-T	SOP-8	Tube

A2804L-D08-T
(1)Packing Type
(2)Package Type
(3)Lead Plating

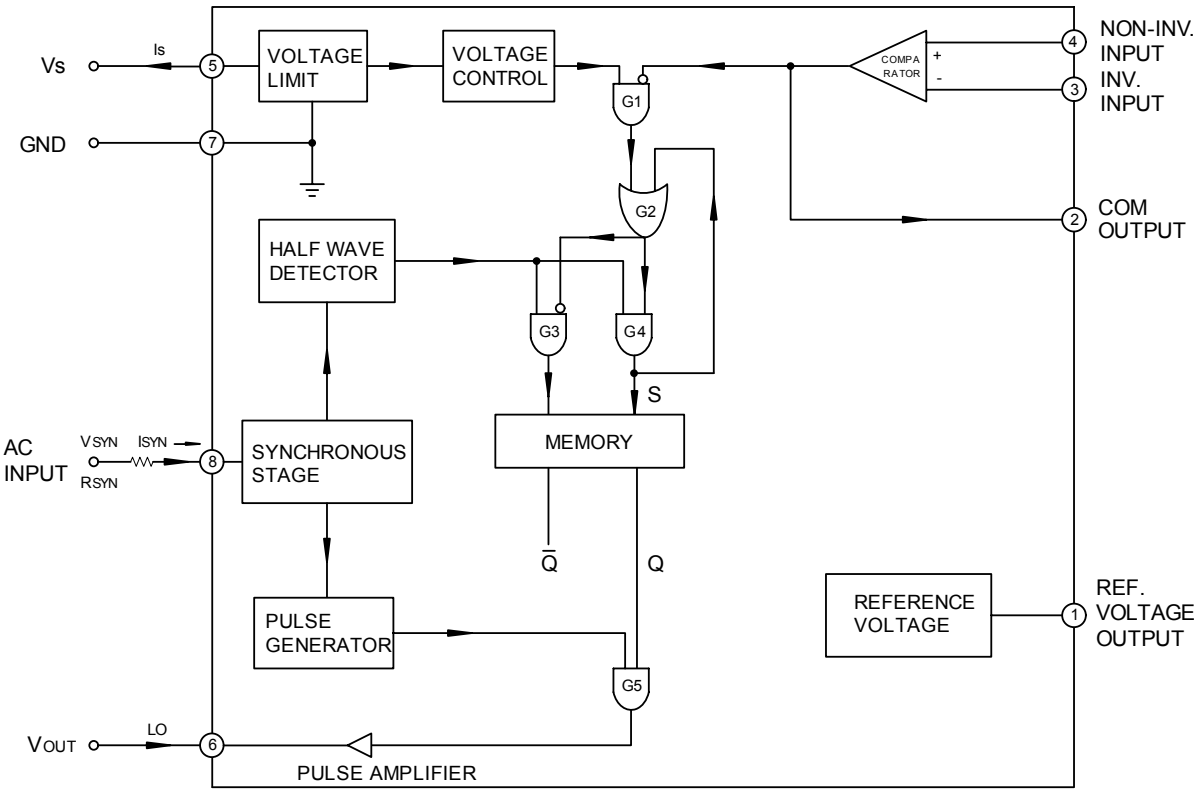
(1) T: Tube, R: Tape Reel
(2) D08: DIP-8, S08: SOP-8
(3) L: Lead Free Plating, Blank: Pb/Sn

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■ PIN CONFIGURATION



■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	-Vs	8.2	V
Input Voltage	V_{IN}	≤ IVsI	V
Supply Current	-Is	40(average)	mA
Synchronous Current	I_{SYN}	5.0(rms)	mA
Power Dissipation	P_D	350	mW
Junction Temperature	T_J	125	°C
Operating Ambient Temperature	T_{OPR}	-20 ~ +70	°C
Storage Temperature	T_{STG}	-65 ~ +150	°C

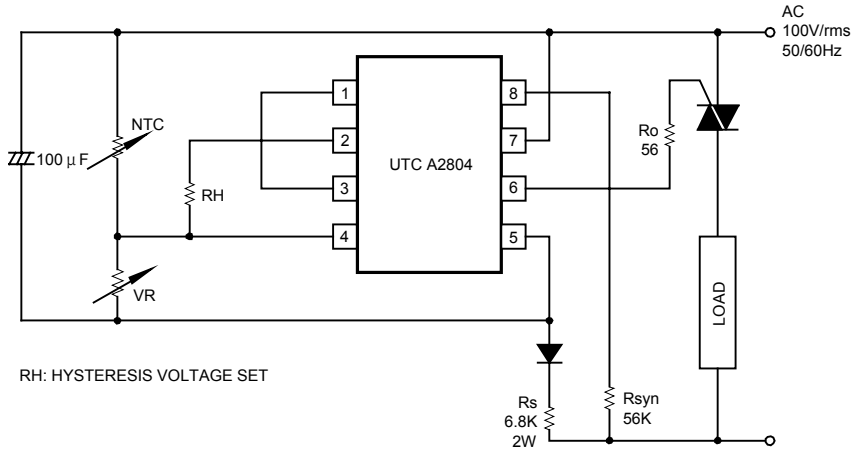
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (Vs=8.0V, V_{SYN}=100 ~ 115Vrms, Ta=25℃, f=50/60Hz)

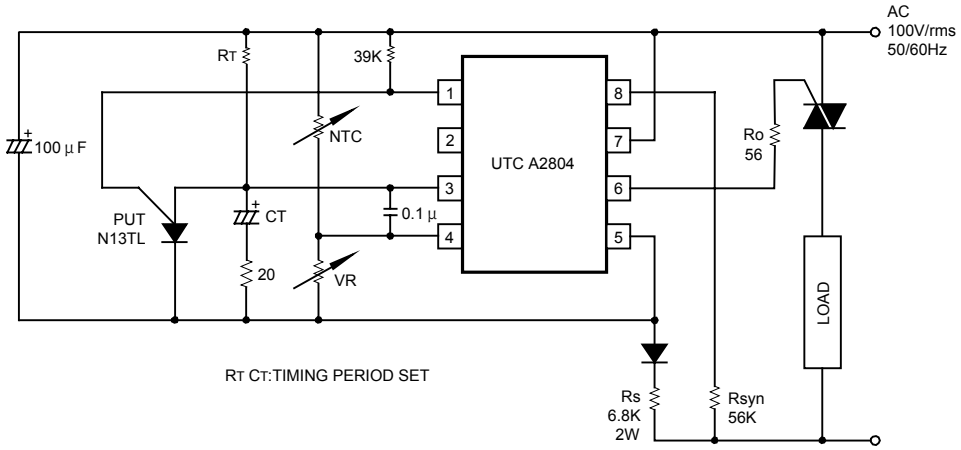
PARAMETER	SYMBOL	PIN NO.	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Output Voltage	V_{OUT}	6	I_{OUT}≤200mA	4.2	5.2		V
Input Offset Voltage	$V_{I(OFF)}$	3, 4			2.0	5.0	mV
Supply Voltage 1	-Vs1	5	Is=2.5mA, R_{SYN}=56K	7.2		8.4	V
Supply Voltage 2	-Vs2	5	Is=20mA, R_{SYN}=56K	7.2		8.6	V
Common Mode Input Voltage Range	$-V_{I(CM)}$	3, 4		0		5.7	V
Reference Voltage	$-V_R$	1	I_R≤1μA		3.6		V
Circuit Current	-Is	5	R_{SYN}=56K		2.0	2.5	mA
Synchronous Current	I_{SYN}	8		0.3			mA
Output Current	I_{OUT}	6	R_{OUT}≤25	200	250		mA
Output Leakage Current	I_{LO}	6				2.0	μA
Input Bias Current	$I_{I(BIAS)}$	3, 4			0.5	1.0	μA
Output Leakage Current	I_{LC}	2				0.2	μA
Output Pulse Width	T_{PULSE}	6	R_{SYN}=56K		200		μs

■ TYPICAL APPLICATIONS

ON-OFF TEMPERATURE CONTROL



TIME PROPORTIONAL TEMPERATURE CONTROL



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