

## GENERAL DESCRIPTION

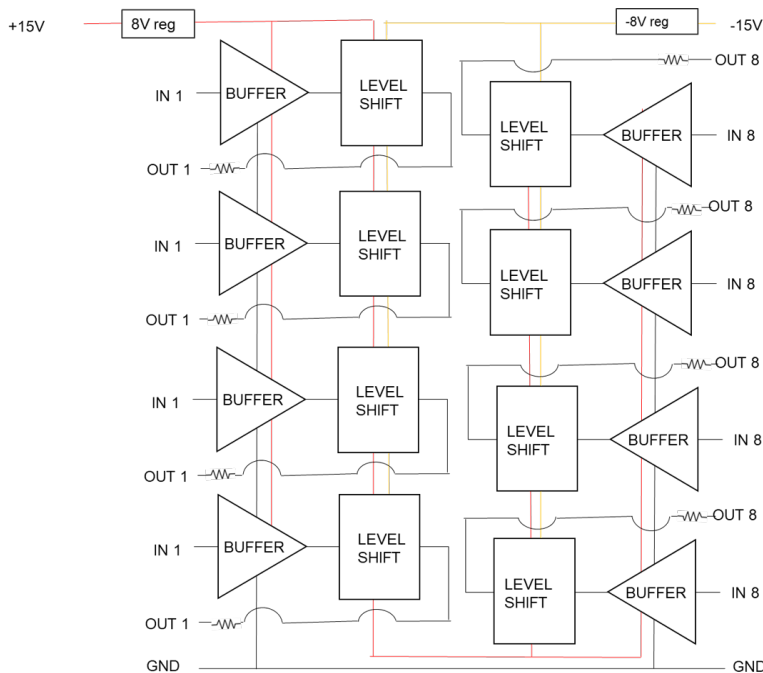
The 9805 is a high speed driver designed to drive PIN diode switches in RF modulators and switches.

The driver is compatible with CMOS and TTL logic and has 8 independant non-inverting channels with 40 mA output.

## FEATURES

- Smooth symmetrical rise fall time
- -8V to +8V output
- hermetic package

## FUNCTION BLOCK DIAGRAM



## MECHANICAL

The 9805 is composed of silicon discrete BJT's mounted to a thin film substrate with integral TaN resistors. Package is 22 lead .625 square hermetic glass metal flatpack designed for good thermal footprint at high current ideal for integration into microwave assembly which operates in harsh environments of high temperature and vibration.

ECCN Code EAR99

9805 is RoHS 3 (EU 2015/863) compliant.



## PIN CONNECTIONS

- |    |                  |
|----|------------------|
| 1  | +5V              |
| 2  | Input 1          |
| 3  | Output 1         |
| 4  | Input 2          |
| 5  | Output 2         |
| 6  | Input 3          |
| 7  | Output 3         |
| 8  | Input 4          |
| 9  | Output 4         |
| 10 | NC               |
| 11 | Ground           |
| 12 | Ground           |
| 13 | NC               |
| 14 | Input 5          |
| 15 | Output 5         |
| 16 | Input 6          |
| 17 | Output 6         |
| 18 | Input 7          |
| 19 | Output 7         |
| 20 | Input 8          |
| 21 | Output 8         |
| 22 | -V (-5V to -12V) |

E2D Sensitivity HBM Class 1B

PRR	Pulse Rejection Rate	Max' 100pF load			↓	KHz
T2W <sub>fall</sub>	Switching Speed Fall	resistive 1V load			↓	ns
T2W <sub>rise</sub>	Switching Speed Rise	resistive 1V load			↓	ns
<b>ДYNAMIC</b>						
IC <sub>neg</sub>	Quiescent Current Negative	10KHz 20% duty cycle			-50	mA
IC <sub>pos</sub>	Quiescent Current Positive	10KHz 20% duty cycle			50	mA
<b>СУББЛ</b>						
IO <sub>low</sub>	Current Out Low	PIV diode load forward bias			-50	mA
IO <sub>hi</sub>	Current Out High	PIV diode load forward bias			+50	mA
VO <sub>low</sub>	Voltage Out Low	open load			0	V
VO <sub>hi</sub>	Voltage Out High	open load			0	V
<b>ОУТБУТ</b>						
VI <sub>low</sub>	Voltage Input Low		0	2	1.8	V
VI <sub>hi</sub>	Voltage Input High		1.8	5.2	2	V
<b>ИЊУТ</b>						
Ts	Storage Temperature		-25		+120	Deg C
To	Operating Temperature		-25		+152	Deg C
Vneg	Output Supply Negative				-50	V
Vpos	Logic Supply Positive				+50	V
<b>ABSOLUTE MAXIMUMS</b>						

SYMBOL	PARAMETER	CONDITIONS	MIN	TYT	MAX	UNITS
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**ELECTRICAL SPECIFICATIONS** Vpos +1.2V, Vneg -1.2V

↓	↓	↓	↓	↓	↓	↓	0	+V	+V	+V	+V	+V	+V	+V	-V	
↓	↓	↓	↓	↓	↓	↓	0	+V	+V	+V	+V	+V	+V	+V	-V	+V
↓	↓	↓	↓	↓	0	↓	↓	+V	+V	+V	+V	+V	-V	+V	+V	
↓	↓	↓	↓	0	↓	↓	↓	+V	+V	+V	+V	-V	+V	+V	+V	
↓	↓	↓	0	↓	↓	↓	↓	+V	+V	+V	-V	+V	+V	+V	+V	
↓	0	↓	↓	↓	↓	↓	↓	+V	-V	+V	+V	+V	+V	+V	+V	
0	↓	↓	↓	↓	↓	↓	↓	-V	+V	+V	+V	+V	+V	+V	+V	

IN1 IN2 IN3 IN4 IN5 IN6 IN7 IN8 OUT1 OUT2 OUT3 OUT4 OUT5 OUT6 OUT7 OUT8

**TRUTH TABLE**

