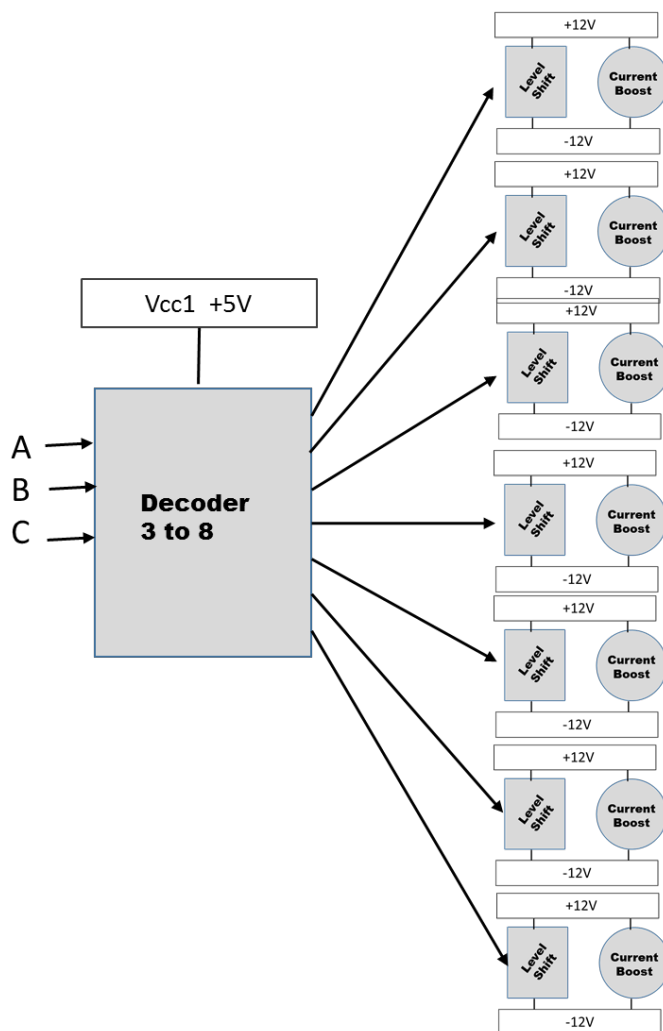


## GENERAL DESCRIPTION

The 9797 is a 7 channel driver suitable for high power PIN diode switch applications.

The 9797 accepts standard TTL and CMOS logic, and level shifts them to +/- voltage levels up to +/-15V and +/-40 mA out. The 9797 is specially designed to drive a series diode configuration.

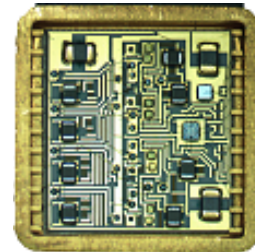
## FUNCTION BLOCK DIAGRAM



## MECHANICAL

The 9797 is housed in an all metal gold over nickel plated hermetic housing with internal chip & wire construction, on alumina substrate and TaN resistors.

It is designed for integration into a hermetic module which operates in harsh environments of high temperature and vibration.



## PIN CONNECTIONS

- 1 +5V
- 2 A
- 3 B
- 4 C
- 5 NC
- 6 Ground
- 7 NC
- 8 NC
- 9 +12V
- 10 NC
- 11 -12V
- 12 Output 7
- 13 Output 6
- 14 NC
- 15 Output 5
- 16 NC
- 17 Output 4
- 18 NC
- 19 Output 3
- 20 Output 2
- 21 Output 1
- 22 NC

**TRUTH TABLE**

A	B	C	OUT1	OUT2	OUT3	OUT4	OUT5	OUT6	OUT7
0	0	0	-V	-V	-V	-V	-V	-V	-V
0	0	1	+V	-V	-V	-V	-V	-V	-V
0	1	0	-V	+V	-V	-V	-V	-V	-V
0	1	1	-V	-V	+V	-V	-V	-V	-V
1	0	0	-V	-V	-V	+V	-V	-V	-V
1	0	1	-V	-V	-V	-V	+V	-V	-V
1	1	0	-V	-V	-V	-V	-V	+V	-V
1	1	1	-V	-V	-V	-V	-V	-V	+V

**ELECTRICAL SPECIFICATIONS**

Vpos1 +5V, Vpos2 +12V, Vneg -12V, TEMP 25C, PRR 1KHz

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
<b>ABSOLUTE MAXIMUMS</b>						
Vpos1	Logic Supply Positive				+7	V
Vpos2	Positive Output Supply				+15	V
Vneg	Output Supply Negative				-15	V
Vpos to Vneg	Positive to Negative Supply Voltage				35	V
To	Operating Temperature		-54		+125	Deg C
Ts	Storage Temperature		-65		+150	Deg C
<b>INPUT</b>						
VI_hi	Voltage Input High		1.8	2.5	5	V
VI_low	Voltage Input Low		0	.5	1.8	V
<b>OUTPUT</b>						
VO_hi	Voltage Out High	open load	11.2	11.5	11.9	V
VO_low	Voltage Out Low	open load	-11.0	-11.4	-11.9	V
IO_hi	Current Out High	steady state **(see note)		+40		mA
IO_low	Current Out Low **(see note)	steady state **(see note)		-40		mA
lopk	Current Peak Output	sink		-1.6		A
<b>SUPPLY</b>						
IQC_pos	Quiescent Current Positive	10KHz 50% duty cycle		8		mA
IQC_neg	Quiescent Current Negative	10KHz 50% duty cycle		8		mA
<b>DYNAMIC</b>						
Trise	Time Rise	800pF & diode load		250		nS
Tfall	Time Fall	800pF & diode load		100		nS
Td_rise	Delay Rise	800pF & diode load		100		nS
Td_fall	Delay Fall	800pF & diode load		500		nS
TSW_rise	Switching Speed Rise	800pF & diode load		350		nS
TSW_fall	Switching Speed Fall	800pF & diode load		350		nS
PRR	Pulse Repetition Rate	Max, 100pF load		10		KHz

\*\* External current limiting is needed to prevent overload and failure. Driver intended to supply 40 mA output.

**MECHANICAL SPECIFICATIONS**

"DRAWING NOT TO SCALE. DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE NOTED."

Package Code 5  
 Leadform: Q3569  
 Type: Housing; Lead Finish: Gold  
 Length .645 in MAX; Width .645 in MAX; Height .135 in MAX

**MARKING SPECIFICATIONS**

Logo: Impellimax  
 Part Number: 9797

