

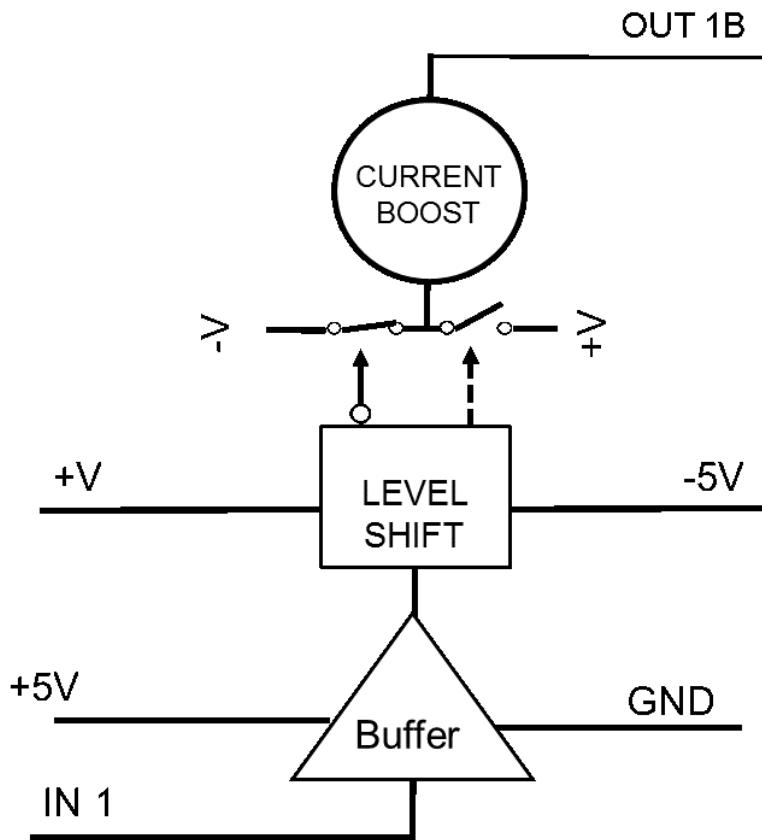
GENERAL DESCRIPTION

The 99191 is a driver featuring wide positive voltage range suited for driving high powered PIN diode switches. The driver is compatible with 5.0V CMOS logic and supplies output high up to +250V and low to -5V at -250mA. External current limiting resistors are required to set current.

FEATURES

- High Pulse Repetition Rate
- Wide Vpos +50V to +250V

FUNCTION BLOCK DIAGRAM



MECHANICAL

The 99191 consists of silicon BJT and MOSFET array mounted to a laminate substrate and sealed with a dam and fill process. This forms a 12x12 mm 18 pos SMT assembly designed for integration into an integrated microwave assembly.

99191 is RoHS compliant.



PIN CONNECTIONS

Recommend bypassing +50V to +250V and -5V with .1 uF capacitor or .01 uF minimum.

- 1 Ground
- 2 NC
- 3 NC
- 4 NC
- 5 +50V to +250V
- 6 NC
- 7 NC
- 8 +5V
- 9 Input 1
- 10 -5V
- 11 NC
- 12 NC
- 13 Output 1
- 14 +50V to +250V
- 15 NC
- 16 NC
- 17 NC
- 18 Ground

TRUTH TABLE

IN1 OUT1

0 -V

1 +V

ELECTRICAL SPECIFICATIONS

Vpos1 +5V, Vpos2 +250V, Vneg -5V, TEMP 25C, PRR 1KHz

	SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
INPUT							
	VI_hi	Voltage Input High	CMOS	4.0	4.5	5.0	V
	VI_low	Voltage Input Low	CMOS	0	.4	.8	V
OUTPUT							
	VO_hi	Voltage Out High	open load	248.8	249	249.5	V
	VO_low	Voltage Out Low	open load	-3.8	-4	-4.5	V
	IO_hi	Current Out High	steady state into 1V diode load		25		mA
	IO_low	Current Out Low	steady state into 1V diode load common arm resistor		-250		mA
	lopk	Current Peak Output	sink and source		500		mA
SUPPLY							
	IQC_pos	Quiescent Current Positive	1KHz 50% duty cycle		5		mA
	IQC_neg	Quiescent Current Negative	1KHz 50% duty cycle		1		mA
DYNAMIC							
	Trise	Time Rise	1500pF load		6		uS
	Tfall	Time Fall	1500pF load		1		uS
	Td_rise	Positive to Negative Delay	1500pF load		3		uS
	Td_fall	Negative to Positive Delay	1500pF load		1		uS
	TSW_rise	Switching Speed Rise	1500pF load		7.5		uS
	TSW_fall	Switching Speed Fall	1500pF load		2		uS
	PRR	Pulse Repetition Rate	Max, 100pF load		1		KHz

MECHANICAL SPECIFICATIONS

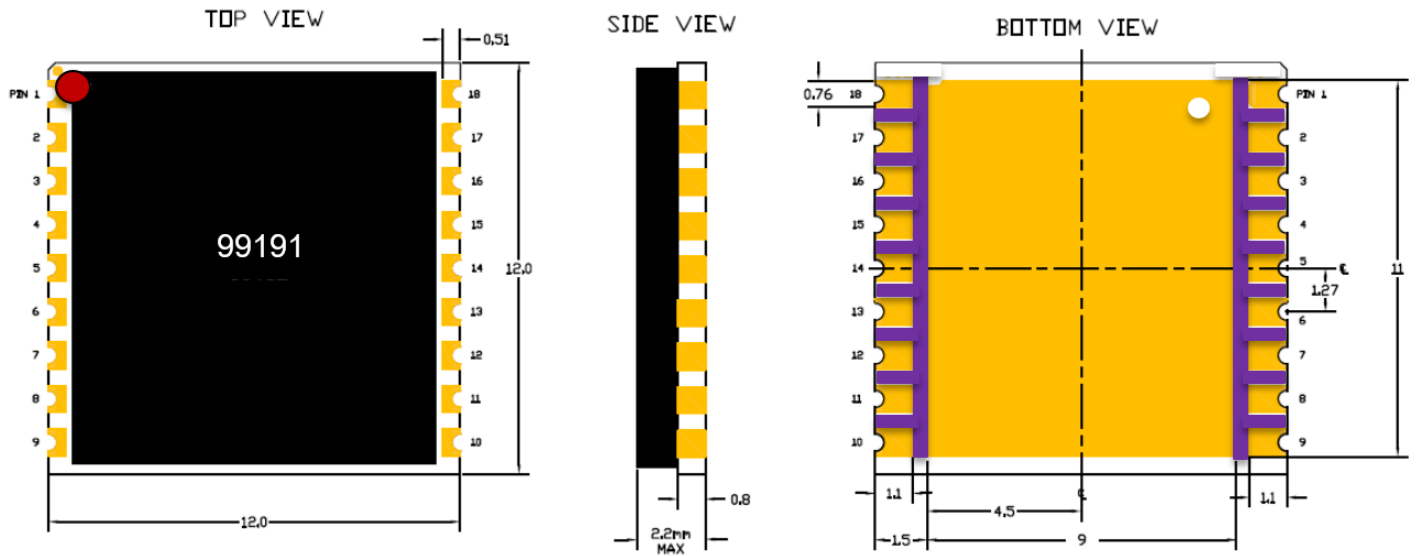
DRAWING NOT TO SCALE. DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE NOTED.

Length 12 mm NOM; Width 12 mm NOM; Height 2.2 mm MAX

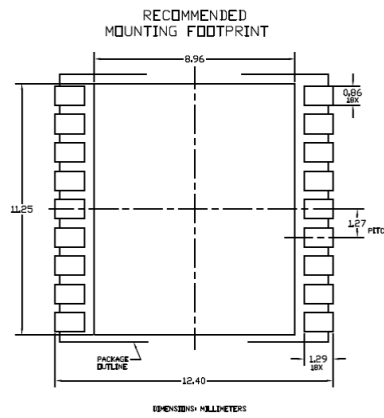
MARKING SPECIFICATIONS

Logo: Impellimax

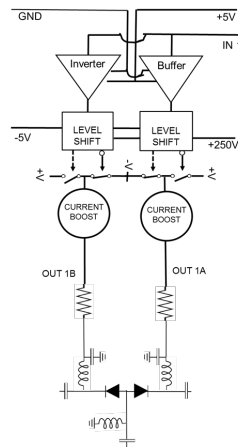
Part Number: 99191



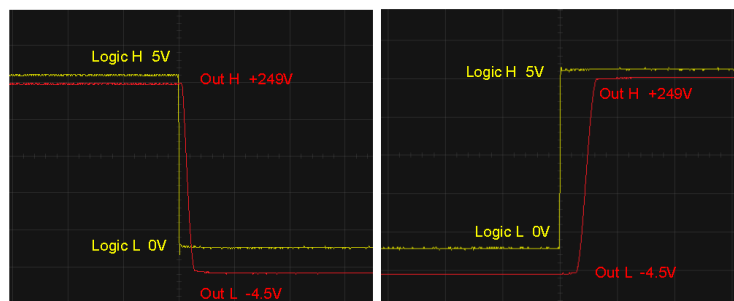
FOOTPRINT



TYPICAL APPLICATION



WAVEFORM



Conditions
 PRF 1KHz 50% duty
 PIN diode\1000 pF\1500 nH load
 50 mA forward current

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 PIN diode\1000 pF\1500 nH load
 50 mA forward current