

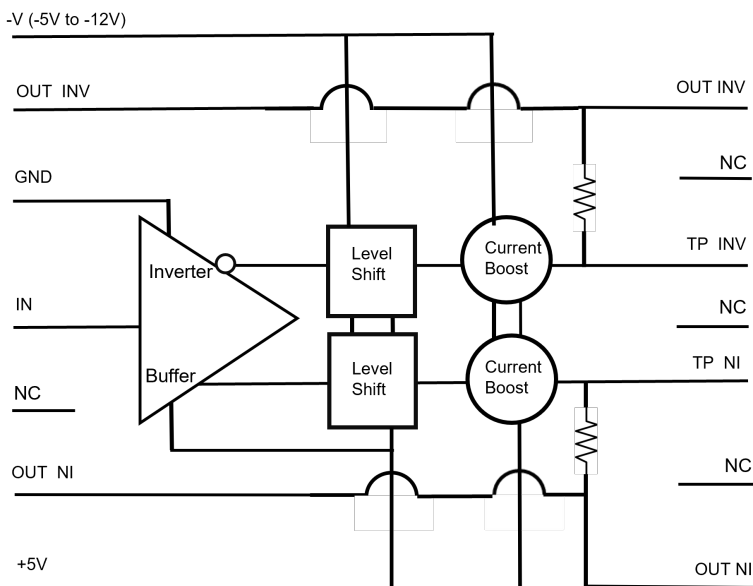
GENERAL DESCRIPTION

The TS150A2 is a driver featuring high speed and wide negative voltage range suited for driving PIN diode switches. The driver is compatible with TTL/3.3V CMOS logic and supplies up to +/-50 mA to bias the diodes.

FEATURES

- high speed <25nS
- Hermetic packaged
- TTL/CMOS Compatible inputs

FUNCTION BLOCK DIAGRAM

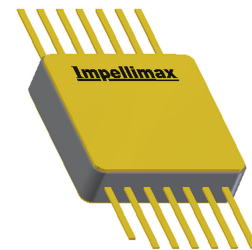


MECHANICAL

The TS150A2 consists of discrete active components and microcircuits mounted on a laminate along with discrete thin passive components, epoxy sealed in a glass to metal 0.375" X 0.375 14-lead SMT package designed for integration into an integrated microwave assembly.

ECCN Code EAR99

TS150A2 is RoHS 3 (EU 2015/863) compliant.



PIN CONNECTIONS

- 1 -V (-5V to -12V)
- 2 Output Inverting
- 3 Ground
- 4 Input
- 5 NC
- 6 Output Noninverting
- 7 +5V
- 8 Output Noninverting
- 9 NC
- 10 Testpoint Noninverting
- 11 NC
- 12 Testpoint Inverting
- 13 NC
- 14 Output Inverting

TRUTH TABLE

IN Out INV OUT NI

0	+V	-V
1	-V	+V

ELECTRICAL SPECIFICATIONS

Vpos +5V, Vneg -12V, TEMP 25C, PRR 1MHz

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
ABSOLUTE MAXIMUMS						
Vpos	Logic Supply Positive		0		+7	V
Vneg	Supply Voltage Negative		-12		0	V
To	Operating Temperature		-54		+125	Deg C
Ts	Storage Temperature		-65		+150	Deg C
INPUT						
VI_hi	Voltage Input High	TTL	2.0		5.5	V
VI_low	Voltage Input Low	TTL	0	.5	.8	V
OUTPUT						
VO_hi	Voltage Out High	open load	4.2	4.5	5	V
VO_low	Voltage Out Low	open load	-11.2	-11.5	-12	V
IO_hi	Current Out High	steady state into 1V diode load +/-5V		50		mA
IO_low	Current Out Low	steady state into 1V diode load +/-5V		-50		mA
lopk	Current Peak Output	sink		-100		mA
SUPPLY						
IQC_pos	Quiescent Current Positive	0.5MHz 50% duty cycle		6		mA
IQC_neg	Quiescent Current Negative	0.5MHz 50% duty cycle		6		mA
DYNAMIC						
Trise	Time Rise			10		nS
Tfall	Time Fall			10		nS
Td_rise	Delay Rise			15		nS
Td_fall	Delay Fall			15		nS
TSW_rise	Switching Speed Rise	10pF load		20		nS
TSW_fall	Switching Speed Fall	10pF load		20		nS
PRR	Pulse Repetition Rate	Max, 10pF load			2	MHz

ESD Sensitivity HBM Class1B

MECHANICAL SPECIFICATIONS

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

** Recommended backside to be electrically and thermally connected to ground. Recommended Bypassing +5V and -V supply with .1 uf . (01 uf min) to ground.

Shipping Packaging
Waffle Packs/trays
Package Code 2
Type: Housing; Lead Finish: Gold
Length .395 in MAX; Width .395 in MAX; Height .115 in MAX

MARKING SPECIFICATIONS

Logo: Impellimax
Part Number: TS150A2
Date Code: YYWW

