

GENERAL DESCRIPTION

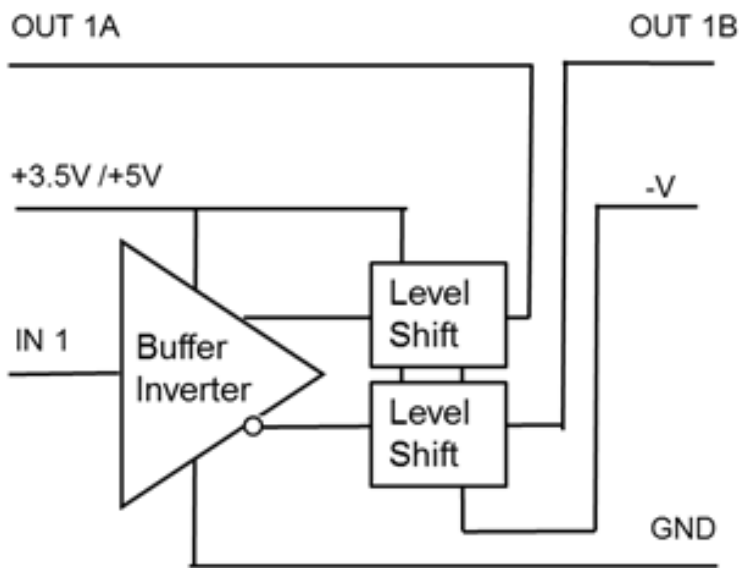
The 99234 is a driver featuring high speed and wide negative voltage range suited for driving MASW-011036 SP2T terminated switch MMIC.

The driver is compatible with 5.0 V CMOS logic and supplies up to 25 mA current to forward bias the diodes and $-V$ from -5 to -28V to back bias the diodes.

FEATURES

- Ultra high speed <12nS
- Available in packaged and unpackaged form
- Compatible with CMOS FPGA outputs
- Compatible with MASW-011036 and MASW-010646

FUNCTION BLOCK DIAGRAM

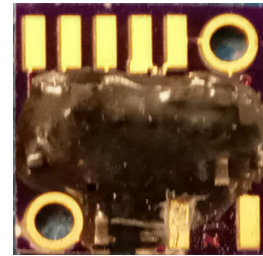


MECHANICAL

The 99234 consists of silicon micro components soldered to a laminate substrate. This is a 10mm x 10mm footprint with a fully continuous grounded gold-plated backside with 2 mounting holes for mounting into an integrated microwave assembly with epoxy or screws.

ECCN Code EAR99

99234 is RoHS 3 (EU 2015/863) compliant.



PIN CONNECTIONS

- 1 $-V$ (-5V to -28V)
- 2 IN1 (Input)
- 3 +3.3V/+5V
- 4 NC
- 5 Ground
- 6 Output 1A Non Invert
- 7 Output 1B Inverting

TRUTH TABLE

IN	Out 1B	Out 1A
0	+mA	-V
1	-V	+mA

ELECTRICAL SPECIFICATIONS

Vpos +5V, Vneg -28V, TEMP 25C, PRR 1MHz

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
ABSOLUTE MAXIMUMS						
Vpos	Logic Supply Positive		0		+7	V
Vneg	Supply Voltage Negative		-30		0	V
To	Operating Temperature		-54		+125	Deg C
Ts	Storage Temperature		-65		+150	Deg C
INPUT						
VI_hi	Voltage Input High	TTL	3.0		5.5	V
VI_low	Voltage Input Low	TTL	0	.5	1.0	V
OUTPUT						
VO_hi	Voltage Out High	open load	4.5	4.8	5	V
VO_low	Voltage Out Low	open load	-27.5	-27.8	-28	V
IO_hi	Current Out High	steady state into MASW-011036 BIAS		25		mA
IO_low	Current Out Low	steady state into MASW-011036 BIAS		-0		mA
lopk	Current Peak Output	sink		-100		mA
SUPPLY						
IQC_pos	Quiescent Current Positive	0.5MHz 50% duty cycle		11		mA
IQC_neg	Quiescent Current Negative	0.5MHz 50% duty cycle		14		mA
DYNAMIC						
Trise	Time Rise			5		nS
Tfall	Time Fall			5		nS
Td_rise	Delay Rise			5		nS
Td_fall	Delay Fall			5		nS
TSW_rise	Switching Speed Rise	10pF load		12		nS
TSW_fall	Switching Speed Fall	10pF load		12		nS
PRR	Pulse Repetition Rate	Max, 10pF load		1	10	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.

Package Code Q

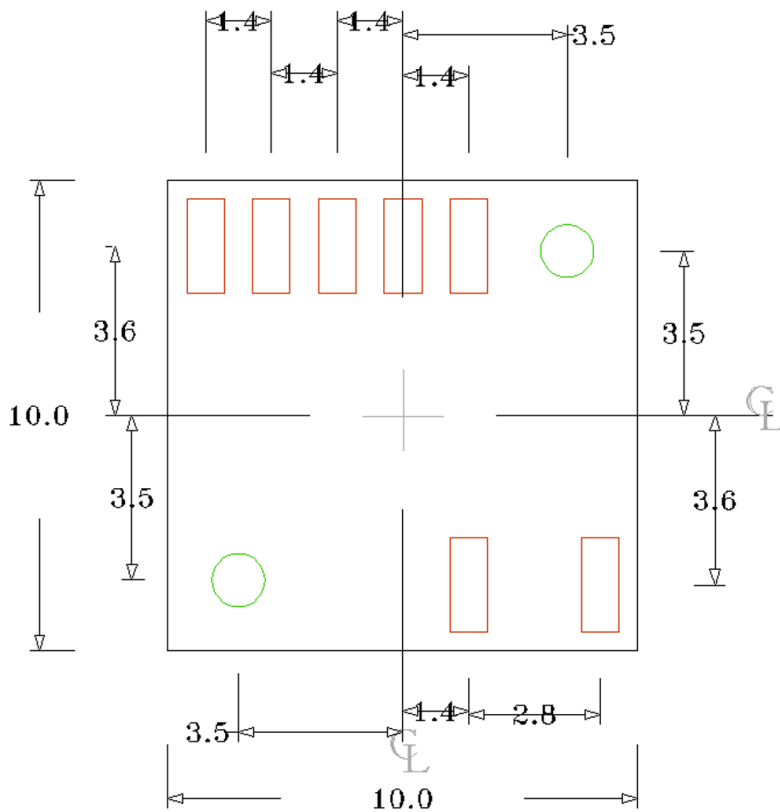
Type: Housing; Lead Finish: Gold

Length 10.0 mm MAX; Width 10.0 mm MAX; Height 1.32 mm MAX; Weight .1 grams MAX

MARKING SPECIFICATIONS

Logo: Impellimax

Part Number: 99234

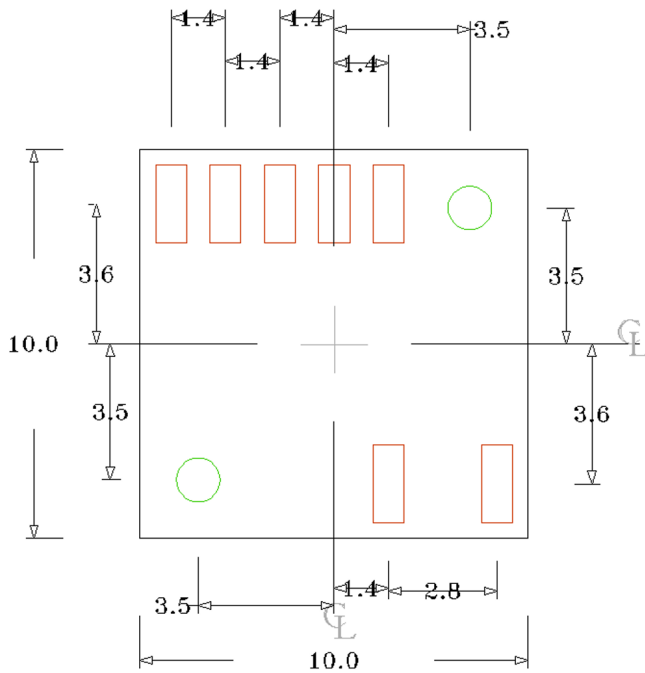


Pads (7pls) are 2mm x 08mm

Holes (2pls) are 1.5mm diameter

Backside is exposed gold-plated copper. It is internally connected to Ground pad on the top surface.

PACKAGING



Pads (7pls) are 2mm x 0.8mm

Holes (2pls) are 1.5mm diameter

Backside is exposed gold-plated copper.
It is internally connected to Ground
pad on the top surface.