

GENERAL DESCRIPTION

The DS899ASM is a decoded with enable 8 channel output driver suitable for multi-throw PIN diode switches.

The DS899ASM accepts TTL or CMOS logic. It was designed to supply current both from positive and negative supply as is needed in series shunt configuration. It is also usable for all series or all shunt switching. Driver will supply +/- 50 mA into a PIN diode load.

FUNCTION BLOCK DIAGRAM

AVAILABLE UPON REQUEST.

MECHANICAL

The DS899ASM is a .200"x.480" alumina substrate assembly with gold bond pads for integration into a chip & wire construction, either open or optionally covered with alumina cover. It is designed for integration into a hermetic module which operates in harsh environments of high temperature and vibration.

PIN CONNECTIONS

- 1 -5V
- 2 Ground
- 3 Enable 2
- 4 Enable 1
- 5 Input C
- 6 Input B
- 7 Input A
- 8 +5V
- 9 Output 0
- 10 Output 1
- 11 Output 2
- 12 Output 3
- 13 Output 4
- 14 Output 5
- 15 Output 6
- 16 Output 7

TRUTH TABLE

INA	INB	INC	EN2	EN1	OUT0	OUT1	OUT2	OUT3	OUT4	OUT5	OUT6	OUT7
0	0	0	1	1	-mA	+mA	+mA	+mA	+mA	+mA	+mA	+mA
1	0	0	1	1	+mA	-mA	+mA	+mA	+mA	+mA	+mA	+mA
0	1	0	1	1	+mA	+mA	-mA	+mA	+mA	+mA	+mA	+mA
1	1	0	1	1	+mA	+mA	+mA	-mA	+mA	+mA	+mA	+mA
0	0	1	1	1	+mA	+mA	+mA	+mA	-mA	+mA	+mA	+mA
1	0	1	1	1	+mA	+mA	+mA	+mA	+mA	-mA	+mA	+mA
0	1	1	1	1	+mA	+mA	+mA	+mA	+mA	+mA	-mA	+mA
1	1	1	1	1	+mA	+mA	+mA	+mA	+mA	+mA	+mA	-mA
X	X	X	1	0	+mA	+mA	+mA	+mA	+mA	+mA	+mA	+mA

ELECTRICAL SPECIFICATIONS

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

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	2.8	3.5	5	V
VI_low	Voltage Input Low	TTL	0	.8	1.8	V
OUTPUT						
VO_hi	Voltage Out High	open load	4.2	4.5	4.8	V
VO_low	Voltage Out Low	open load	-4.8	-4.5	-4.2	V
IO_hi	Current Out High	steady state into 1V diode load		20		mA
IO_low	Current Out Low	steady state into 1V diode load		-20		mA
lopk	Current Peak Output	sink		-80		mA
SUPPLY						
IQC_pos	Quiescent Current Positive	10MHz 50% duty cycle		30		mA
IQC_neg	Quiescent Current Negative	10MHz 50% duty cycle		10		mA
DYNAMIC						
Trise	Time Rise			15		nS
Tfall	Time Fall			15		nS
Td_rise	Delay Rise			35		nS
Td_fall	Delay Fall			35		nS
TSW_rise	Switching Speed Rise	5pF load		50		nS
TSW_fall	Switching Speed Fall	5pF load		50		nS
PRR	Pulse Repetition Rate	Max, 5pF load		5		MHz

MECHANICAL SPECIFICATIONS

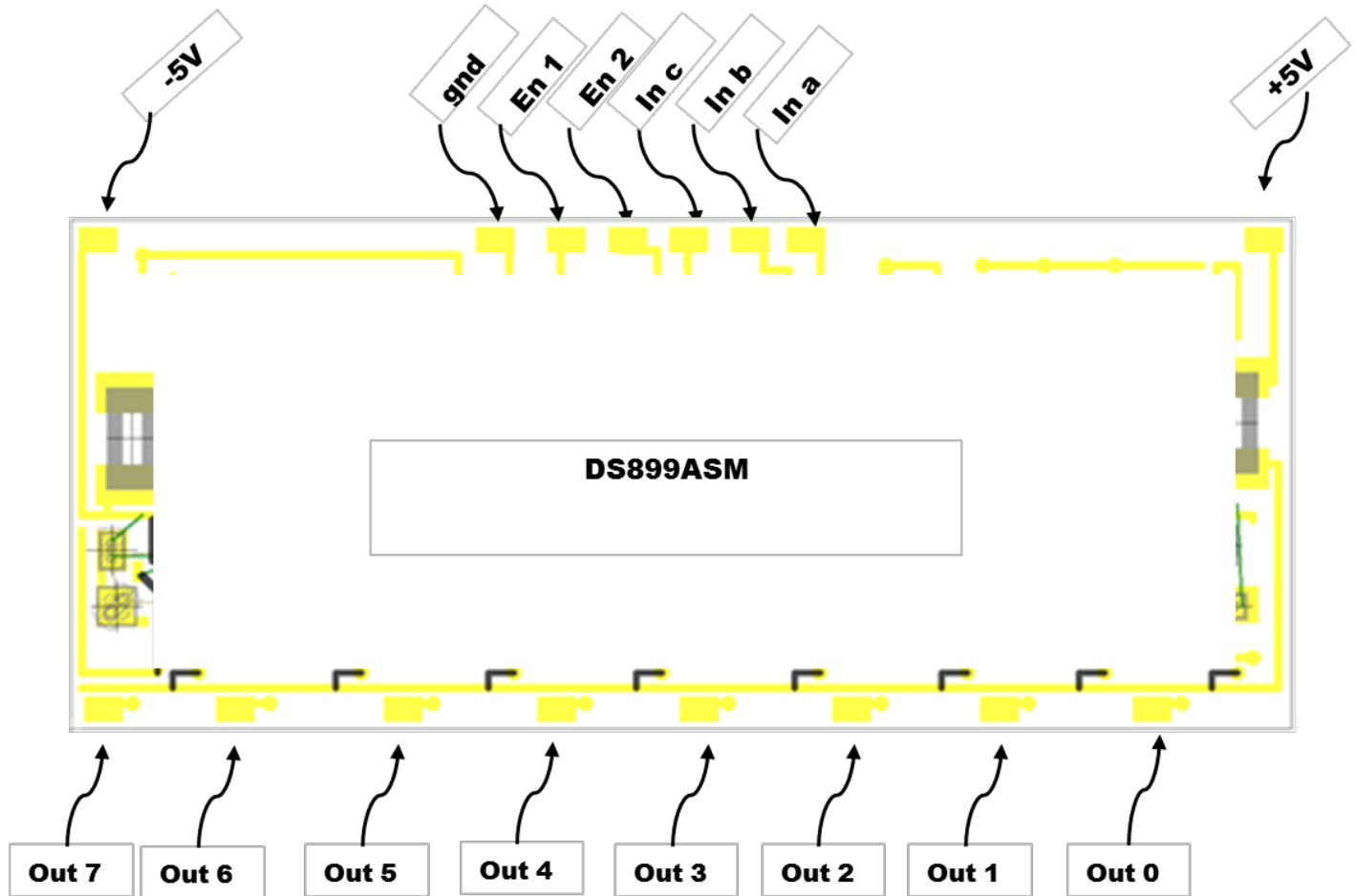
"DRAWING NOT TO SCALE. DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE NOTED."

Type: Substratable

Length .480 in TYP; Width .200 in TYP; Height .045 in TYP; Weight .1 grams

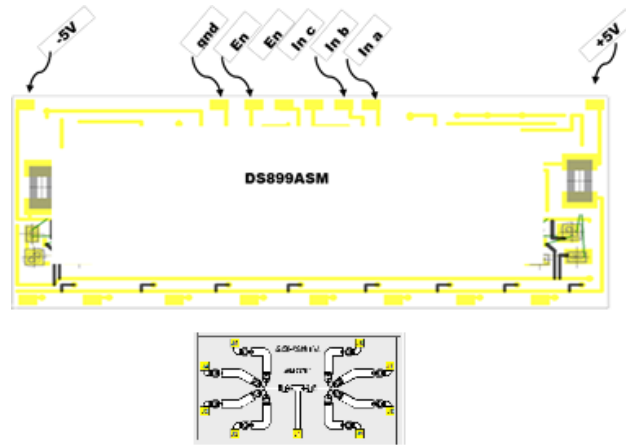
MARKING SPECIFICATIONS

Part Number: DS899ASM



TYPICAL APPLICATION

Typical SP8T Application.



ORDERING INFORMATION

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DS899ASM	Open substrate
DS899ASM-C	Open substrate w cover