

### FEATURES

- **1 CHANNEL TYPE**  
1a output
- **DESIGNED FOR AC/DC SWITCHING LINE CHANGER**
- **SMALL PACKAGE**  
4 pin SOP
- **LOW OFFSET VOLTAGE**
- **AVAILABLE ON TAPE AND REEL**  
PS7200N-1A-E3, E4, F3, F4

### DESCRIPTION

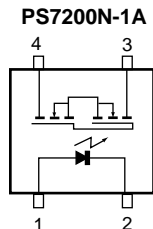
The PS7200N-1A is a 4 pin SOP solid state relay containing normally open (N.O.) contact on output side. It is suitable for analog signal control, due to its low offset and high linearity.

### APPLICATIONS

- MEASUREMENT EQUIPMENT
- FA/OA EQUIPMENT

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25 °C)

		PART NUMBER	PS7200N-1A			
	SYMBOLS	PARAMETERS	UNITS	MIN	TYP	MAX
Diode	V <sub>F</sub>	Forward Voltage, I <sub>F</sub> = 10 mA	V		1.2	1.4
	I <sub>R</sub>	Reverse Current, V <sub>R</sub> = 5 V	μA			5
MOS FET	I <sub>LOFF</sub>	Off-State Leakage Current, V <sub>D</sub> = 40 V	nA			1
	C <sub>OUT</sub>	Off-State Capacitance (MOSFET), V <sub>D</sub> = 0 V, f = 1 MHz	pF		6	8
Coupled	R <sub>ON</sub>	On-State Resistance (MOSFET), I <sub>F</sub> = 10 mA, I <sub>L</sub> = 10 mA	Ω		1.8	
	CR	R <sub>ON</sub> x C <sub>OUT</sub>	pF•Ω		11	
	t <sub>ON</sub>	Turn-on Time, I <sub>F</sub> = 10 mA, V <sub>O</sub> = 5 V, PW ≥ 10 ms	ms		0.01	1.0
	t <sub>OFF</sub>	Turn-off Time, I <sub>F</sub> = 10 mA, V <sub>O</sub> = 5 V, PW ≥ 10 ms	ms		0.5	1.0
	R <sub>I-O</sub>	Isolation Resistance, V <sub>I-O</sub> = 1.0 kV	Ω	10 <sup>9</sup>		
	C <sub>I-O</sub>	Isolation Capacitance, V = 0 V, f = 1 MHz	pF		0.4	



**ABSOLUTE MAXIMUM RATINGS<sup>1</sup>** (T<sub>A</sub> = 25°C)

SYMBOLS	PARAMETERS	UNITS	RATINGS
Diode			
I <sub>F</sub>	Forward Current (DC)	mA	50
V <sub>R</sub>	Reverse Voltage	V	5
P <sub>D</sub>	Power Dissipation	mW	50
I <sub>FP</sub>	Peak Forward Current <sup>2</sup>	A	1
MOSFET			
V <sub>L</sub>	Break Down Voltage	V	40
I <sub>L</sub>	Continuous Load Current	mA	250
P <sub>D</sub>	Power Dissipation	mW	100
Coupled			
BV	Isolation Voltage <sup>3</sup>	V	1500
P <sub>T</sub>	Total Power Dissipation	mW	150
T <sub>OPR</sub>	Operating Temperature	°C	-40 to +80
T <sub>STG</sub>	Storage Temperature	°C	-40 to +100

Notes:

1. Operation in excess of any one of these parameters may result in permanent damage.
2. PW = 100µs, Duty Cycle = 1%.
3. AC voltage for 1 minute at T<sub>A</sub> = 25°C, RH = 60% between input and output.

**OUTLINE DIMENSIONS** (Units in mm)

