



Precision Threshold Logic Gate Switch

Please email: powerictechsupport@vishay.com for more information or to request a full datasheet.

DESCRIPTION

The SiP32205 is an integrated logic AND switch with a precision logic threshold. The output is driven high only when both inputs are high, otherwise it is held low. The device features low quiescent current and fast switching capability.

The two logic inputs have extremely low input capacitance and a tightly controlled threshold voltage between 1 V to 1.3 V over the operating range.

The logic inputs also have integrated 100 kΩ pull down resistors.

To prevent glitches during power up, internal circuitry will hold the output low until the supply voltage has settled.

The SiP32205 is available in (Pb)-free, 6 bump, 0.8 mm x 1.2 mm WCSP package, with 0.4 mm pitch. The package has black polyethylene top side lamination to reduce light sensitivity and improve ruggedness.

FEATURES

- Wide input voltage, 2 V to 5 V
- Two logic inputs with integrated 100 kΩ pull down resistors
- < 10 pF logic input capacitance
- < 1 kΩ output pull-up/pull-down resistors
- Compact 6-bump WCSP package with top side lamination
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

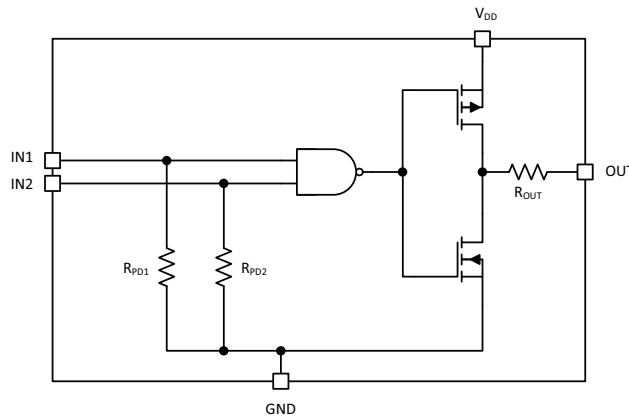


RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

APPLICATIONS

- Portable devices
- Peripherals and accessories

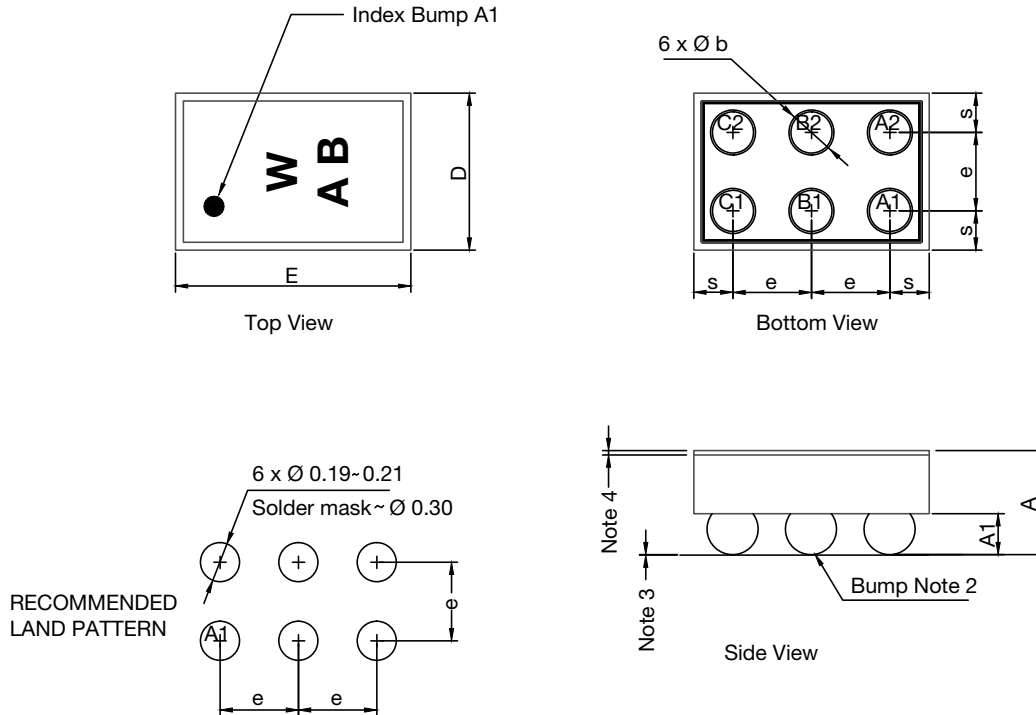
EQUIVALENT CIRCUIT



TRUTH TABLE		
IN1	IN2	V _{DD} to OUT
0	0	OFF
1	0	OFF
0	1	OFF
1	1	ON

WCSP6: 6 Bumps

(2 x 3, 0.4 mm pitch, 208 μm bump height, 0.8 mm x 1.2 mm die size)



DIMENSION	MILLIMETERS ⁽⁵⁾			INCHES		
	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.
A	0.515	0.530	0.545	0.0203	0.0209	0.0215
A1	0.183	0.208	0.233	0.0072	0.0082	0.0092
b	0.234	0.260	0.312	0.0092	0.0102	0.0123
e	0.400			0.0157		
s	0.160	0.180	0.200	0.0063	0.0071	0.0078
D	0.720	0.760	0.800	0.0283	0.0299	0.0315
E	1.120	1.160	1.200	0.0441	0.0457	0.0472

Notes (unless otherwise specified)

- (1) Laser mark on the silicon die back coated with an epoxy film.
- (2) Bumps are SAC396.
- (3) 0.050 max. co-planarity.
- (4) Laminate tape thickness is 0.022 mm.
- (5) Use millimeters as the primary measurement.

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 DWG: 6018



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