

DSO221SR TYPE SPXO SPECIFICATION

1. Device Name SPXO
2. Type DSO221SR
3. Frequency 4.9152MHz
4. Absolute Maximum Value

	Item	Symbol	Rating	Unit
1	Supply Voltage	V _{cc}	-0.5 ~ +5.0	V
2	Storage Temperature Range	T _{stg}	-40 ~ +85	°C

5. Recommended Operating Conditions

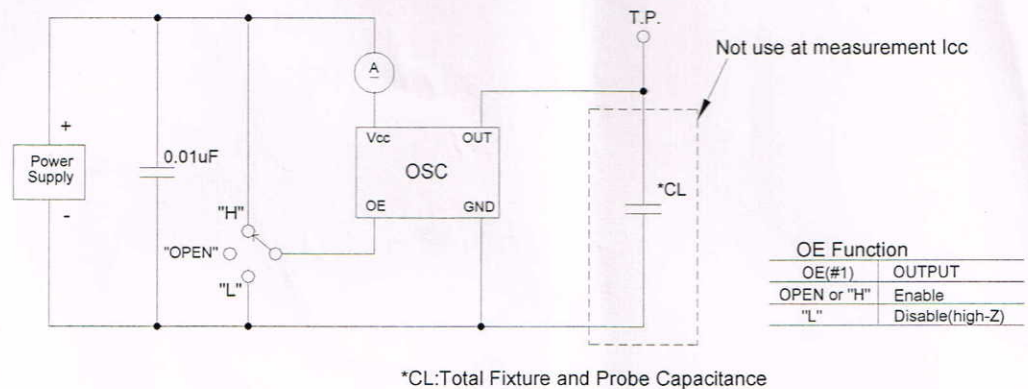
	Item	Symbol	min.	typ.	max.	Unit
1	Supply Voltage	V _{cc}	+3.0	+3.3	+3.6	V
2	Operating Temperature Range	T _{opr}	-40	-	+85	°C
3	Output Load	-	-	-	15	pF

6. Electrical Characteristics

(T_a=+25 °C, V_{cc}=+3.3V unless otherwise noted)

	Item	Symbol	Test Conditions	Limits			Unit
				min.	typ.	max.	
1	Frequency Tolerance	f _{tol}	V _{cc} =+3.3V ± 0.3V T _a =-40 ~ +85 °C	-50	-	+50	ppm
2	Supply Current	I _{cc}	at No Load, #1pin: "H" or open	-	-	1.8	mA
	Standby Current	I _{-std}	#1pin: "L"	-	-	10	µA
3	Output Character		15pF				
	3-1.Symmetry	SYM	0.5V _{cc} level	45	50	55	%
	3-2.Rise Time	t _r	0.1V _{cc} ~ 0.9V _{cc}	-	-	5	ns
	3-3.Fall Time	t _f	0.9V _{cc} ~ 0.1V _{cc}	-	-	5	ns
	3-4.Low Level	V _{OL}		-	-	V _{cc} -0.1	V
	3-5.High Level	V _{OH}		V _{cc} -0.9	-	-	V
4	Input OE						
	4-1.Output enable time	t _{PZL}		-	-	1	ms
	4-2.Output disable time	t _{PLZ}		-	-	150	ns
	4-3.Enable input	V _{IH}		V _{cc} -0.8	-	-	V
4-4.Disable input	V _{IL}		-	-	V _{cc} -0.2	V	

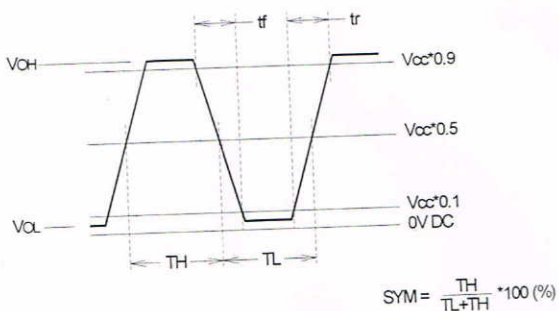
* Fig1. Measurement Circuits



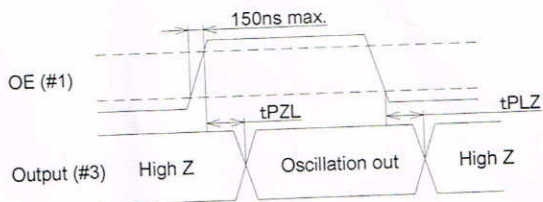
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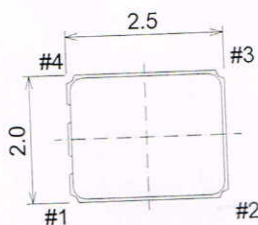
* Fig2. Output Waveform



* Fig3. Input output condition



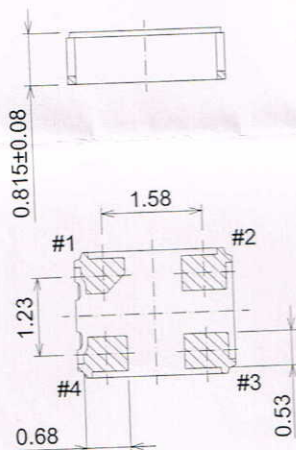
7. Outline, Pin Connections



Pin Connections

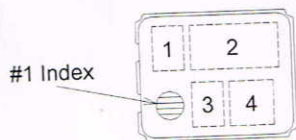
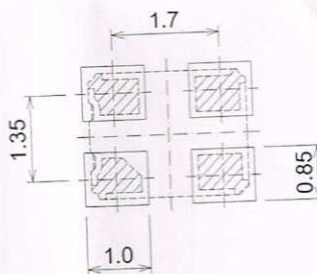
Pin No.	Connection
#1	OE(Output Enable)
#2	GND
#3	Output
#4	Vcc

Tolerance: ±0.15
unit: mm



(Land Pattern (Reference))

<Top View>



- 1.Type : R
- 2.Nominal Frequency : 4.91
- 3.KDS LOGO(D)
- 4.Lot No. refer to **【Lot No.】**

【Lot No.】

Year: Last digit of the year
Month: Alphabet assign below

Year	X1	X2	X3	X4	X5	X6	X7	X8	X9	X0
Symbol	1	2	3	4	5	6	7	8	9	0

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Symbol	A	B	C	D	E	F	G	H	J	K	L	M

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