

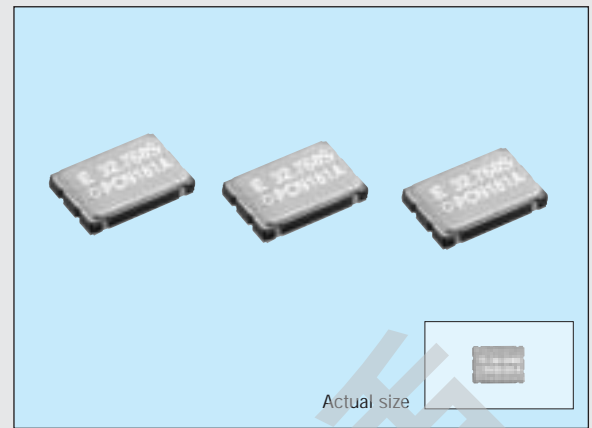
HIGH-STABILITY HIGH-FREQUENCY OSCILLATOR

SG-730 series

Products number (please refer to page 2)

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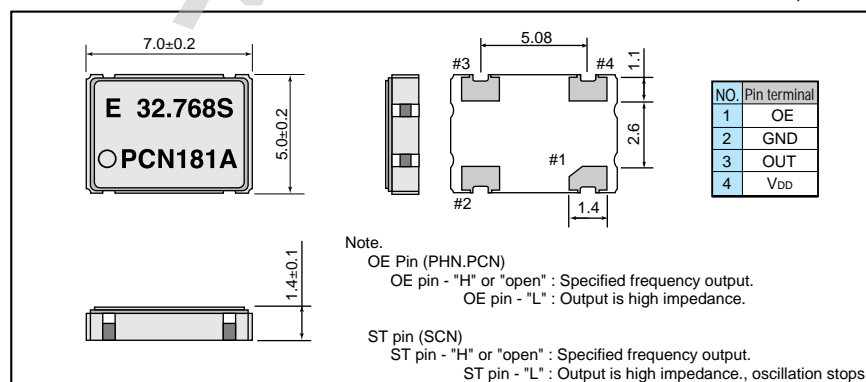
- Reflowable and high density mounting type SMD.
- Using C-MOS IC allows low current consumption.
- Operating supply voltage: 5.0 V(*H*), 3.3 V(*C*)
- Output enable function(OE) can be used for low current consumption applications.

**Specifications (characteristics)**

Item	Symbol	Specifications			Remarks
		PHN	PCN	SCN	
Output frequency range	f_0	1.5000 MHz to 67.0000 MHz		67.0001 MHz to 80.0000 MHz	Refer to page 31. "Frequency range"
Power source voltage	Max. supply voltage	V_{DD-GND} -0.5 V to +7.0 V			$V_{DD} = GND$
	Operating voltage	V_{DD}	H : 5.0 V ± 0.5 V	C : 3.3 V ± 0.3 V	
Temperature range	Storage temperature	T_{STG} -40 °C to +125 °C			Stored as bare product after unpacking
	Operable temperature	T_{OPR} -40 °C to +85 °C			Refer to page 31. "Frequency range"
Frequency stability	$\Delta f/f_0$	S : $\pm 25 \times 10^{-6}$ Max. , B : $\pm 50 \times 10^{-6}$ Max. , C : $\pm 100 \times 10^{-6}$ Max.			-20 °C to +70 °C
		L : $\pm 50 \times 10^{-6}$ Max. , M : $\pm 100 \times 10^{-6}$ Max.			-40 °C to +85 °C
Current consumption	I_{OP}	12 mA Max.	7 mA Max.	-	$f_0 \leq 32$ MHz, No load
		30 mA Max.	12 mA Max.	-	$f_0 \leq 40$ MHz, No load
		40 mA Max.	15 mA Max.	-	$f_0 \leq 50$ MHz, No load
		50 mA Max.	20 mA Max.	-	$f_0 \leq 67$ MHz, No load
		-	-	35 mA Max.	$f_0 \leq 80$ MHz, No load
Output disable current	I_{OE}	5 mA Max.	4 mA Max.	-	$f_0 \leq 32$ MHz, OE=GND(PHN,PCN)
		25 mA Max.	10 mA Max.	-	$f_0 \leq 40$ MHz, OE=GND(PHN,PCN)
		30 mA Max.	10 mA Max.	-	$f_0 \leq 50$ MHz, OE=GND(PHN,PCN)
		40 mA Max.	10 mA Max.	-	$f_0 \leq 67$ MHz, OE=GND(PHN,PCN)
Standby current	I_{ST}	-	-	15 μ A Max.	$\overline{ST} = GND(SCN)$
Duty	t_w/t	45 % to 55 %			1/2 V_{DD} level
High output voltage	V_{OH}	$V_{DD} - 0.4$ V Min.			$I_{OH} = -8$ mA
Low output voltage	V_{OL}	0.4 V Max.			$I_{OL} = 8$ mA
Output load condition	C_L	15 pF Max.			
Output enable/disable input voltage	V_{IH}	2.0 V Min.	2.0 V Min.	70 % V_{DD} Min.	OE terminal (PCN, PHN) ST terminal (SCN)
	V_{IL}	0.8 V Max.	0.5 V Max.	30 % V_{DD} Max.	
Output rise time	t_{rLH}	4 ns Max.			20 % \rightarrow 80 % V_{DD} level
Output fall time	t_{rHL}	4 ns Max.			80 % \rightarrow 20 % V_{DD} level
Oscillation start up time	t_{OSC}	10 ms Max.			Time at minimum operating voltage to be 0 s
Aging	f_a	$\pm 10 \times 10^{-6}$ /year Max.			$T_a = +25$ °C, $V_{DD} = 5.0$ V / 3.3 V, 10 years

External dimensions

(Unit: mm)

**Recommended soldering pattern** (Unit: mm)