

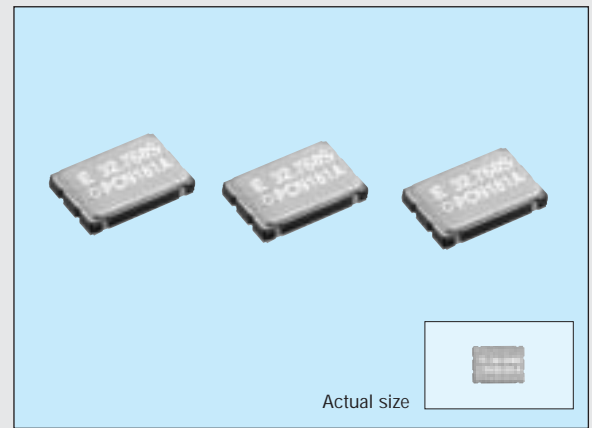
## HIGH-STABILITY HIGH-FREQUENCY OSCILLATOR

**SG-730 series**

Products number (please refer to page 2)

**Q33730xxxxxx00**

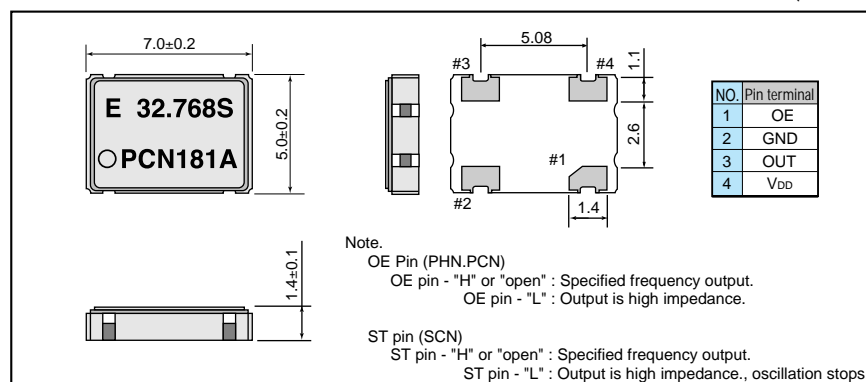
- Reflowable and high density mounting type SMD.
- Using C-MOS IC allows low current consumption.
- Operating supply voltage:5.0 V(\*H\*),3.3 V(\*C\*)
- Output enable function(OE) can be used for low current consumption applications.

**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	$V_{DD-GND}$			$V_{DD} = GND$
	Operating voltage	$V_{DD}$	H : 5.0 V $\pm 0.5$ V	C : 3.3 V $\pm 0.3$ V	
Temperature range	Storage temperature	$T_{STG}$			Stored as bare product after unpacking
	Operable temperature	$T_{OPR}$			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 $\mu$ A Max.	$\overline{ST} = GND(SCN)$
Duty	tw/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	$V_{IH}$ $V_{IL}$	2.0 V Min. 0.8 V Max.	2.0 V Min. 0.5 V Max.	70 % $V_{DD}$ Min. 30 % $V_{DD}$ Max.	OE terminal (PCN, PHN) ST terminal (SCN)
Output rise time	$t_{TLH}$	4 ns Max.			20 % $\rightarrow$ 80 % $V_{DD}$ level
Output fall time	$t_{THL}$	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)