Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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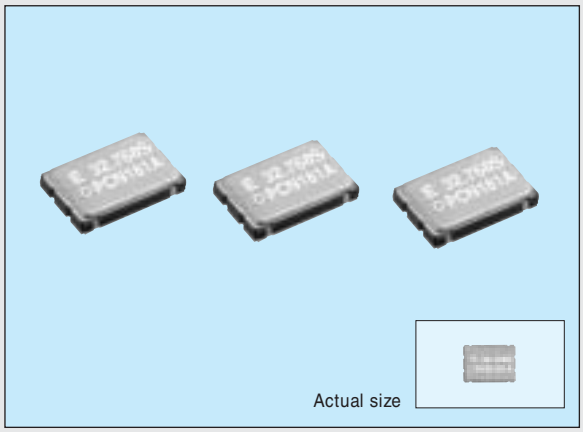
HIGH-STABILITY HIGH-FREQUENCY OSCILLATOR

SG-730 series

Products number (please refer to page 2)

Q33730xxxxxxx00

- 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.

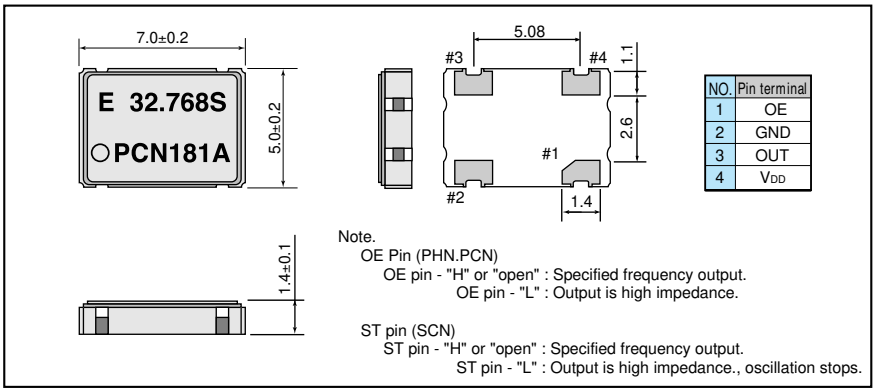


Specifications (characteristics)

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 : ±25 × 10^{-6} Max. , B : ±50 × 10^{-6} Max. , C : ±100 × 10^{-6} Max.			-20 °C to +70 °C
			L : ±50 × 10^{-6} Max. ,M : ±100 × 10^{-6} Max.			-40 °C to +85 °C
Current consumption		Iop	12 mA Max.	7 mA Max.	-	f_0 ≤ 32 MHz, No load
			30 mA Max.	12 mA Max.	-	f_0 ≤ 40 MHz, No load
			40 mA Max.	15 mA Max.	-	f_0 ≤ 50 MHz, No load
			50 mA Max.	20 mA Max.	-	f_0 ≤ 67 MHz, No load
			-	-	35 mA Max.	f_0 ≤ 80 MHz, No load
Output disable current		I_{OE}	5 mA Max.	4 mA Max.	-	f_0 ≤ 32 MHz, OE=GND(PHN,PCN)
			25 mA Max.	10 mA Max.	-	f_0 ≤ 40 MHz, OE=GND(PHN,PCN)
			30 mA Max.	10 mA Max.	-	f_0 ≤ 50 MHz, OE=GND(PHN,PCN)
			40 mA Max.	10 mA Max.	-	f_0 ≤ 67 MHz, OE=GND(PHN,PCN)
Standby current		I_{st}	-	-	15 µA 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/		V_{IH}	2.0 V Min.	2.0 V Min.	70 % V_{DD} Min.	OE terminal (PCN, PHN) ST terminal (SCN)
disable input voltage		V_{IL}	0.8 V Max.	0.5 V Max.	30 % V_{DD} Max.	
Output rise time		t_{TLH}		4 ns Max.		20 %→80 % V_{DD} level
Output fall time		t_{THL}		4 ns Max.		80 %→20 % V_{DD} level
Oscillation start up time		t_{OSC}		10 ms Max.		Time at minimum operating voltage to be 0 s
Aging		fa		±10 x 10^{-6}/year Max.		Ta=+25 °C, V_{DD} = 5.0 V / 3.3 V, 10 years

External dimensions

(Unit: mm)



NO.	Pin terminal
1	OE
2	GND
3	OUT
4	V_{DD}

Note.
OE Pin (PHN.PCN)
OE pin - "H" or "open" : Specified frequency output.
OE pin - "L" : Output is high impedance.

ST pin (SCN)
ST pin - "H" or "open" : Specified frequency output.
ST pin - "L" : Output is high impedance., oscillation stops.

Recommended soldering pattern

(Unit: mm)