



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!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

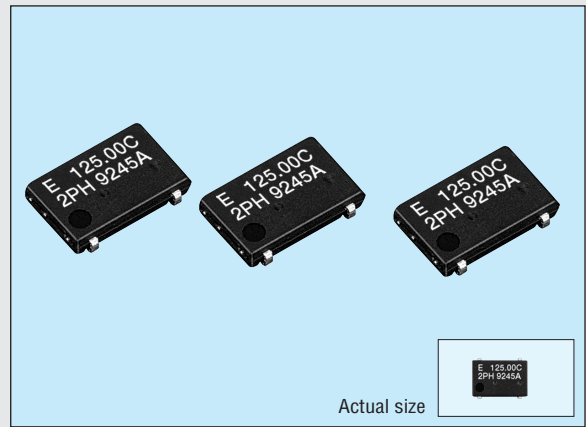


PROGRAMMABLE HIGH-FREQUENCY CRYSTAL OSCILLATOR

SG-8002JF series

- Wide frequency output by PLL technology.
- Quick delivery of samples and short lead mass production time.
- Excellent shock resistance and environmental capability.
- Output enable function (OE) and stand-by function (ST) can be used for low current consumption applications.

8002 PROM Writer available to purchase.(Type:PRW-8000A3-M01)
Please contact EPSON or local sales representative.



Specifications (characteristics)

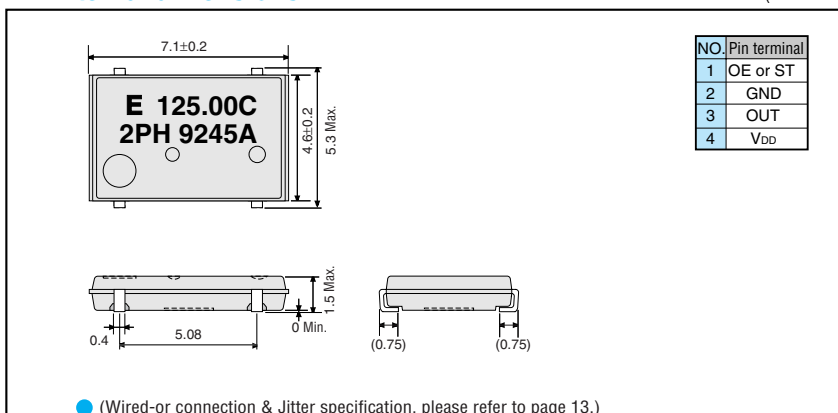
Item	Symbol	PT/ST	PH/SH	PC/SC	Remarks
Output frequency range	f_0		1.0000 MHz to 125.0000 MHz		
Power source voltage	Max. supply voltage	V_{DD-GND}	-0.5 V to +7.0 V		
	Operating voltage	V_{DD}	5.0 V \pm 0.5 V	3.3 \pm 0.3 V	3.0 V \pm 0.3 V: $f_0 \leq 66.7$ MHz(PC/SC)
Temperature range	Storage temperature	T_{STG}	-55 °C to +125 °C		
	Operating temperature	T_{OPR}	-20 °C to +70 °C (-40 °C to +85 °C)	-40 °C to +85 °C	Refer to page 4."Frequency range"
Soldering condition	T_{SOL}	Twice at under +260 °C within 10 s or under +230 °C within 3 min.			
Frequency stability	$\Delta f/f_0$		B: $\pm 50 \times 10^{-6}$ C: $\pm 100 \times 10^{-6}$ M: $\pm 100 \times 10^{-6}$		B,C: -20 °C to +70 °C, M: -40 °C to 85 °C
Current consumption	I_{OP}		45 mA Max.	28 mA Max.	No load condition, Max. frequency range
Output disable current	I_{OE}		30 mA Max.	16 mA Max.	OE=GND(PT,PH,PC)
Standby current	I_{ST}		50 μ A Max.		ST=GND(ST,SH,SC)
Duty	t_w/t	—	40 % to 60 %		C-MOS load: 1/2 V_{DD} level
		40 % to 60 %	—		TTL load: 1.4 V level
High output voltage	V_{OH}		V_{DD} -0.4 V Min.		I_{OH} =-16 mA(PT/ST,PH/SH), -8 mA(PC/SC)
Low output voltage	V_{OL}		0.4 V Max.		I_{OL} = 16 mA(PT/ST,PH/SH), 8 mA(PC/SC)
Output load condition (fan out)	TTL	N	5 TTL Max.		Max. frequency and Max. operating voltage range
	C-MOS	C_L	15 pF Max.		
Output enable/disable input voltage		V_{IH}	2.0 V Min.		\overline{ST} , OE terminal
		V_{IL}	0.8 V Max.		
Output rise time	C-MOS level	t_{rLH}	—		C-MOS load: 20 % \rightarrow 80 % V_{DD}
	TTL level		4 ns Max.		
Output fall time	C-MOS level	t_{fHL}	—		C-MOS load: 80 % \rightarrow 20 % V_{DD}
	TTL level		4 ns Max.		
Oscillation start up time	t_{OSC}		10 ms Max.		Time at minimum operating voltage to be 0 s
Aging	f_a		$\pm 5 \times 10^{-6}$ /year Max.		$T_a = +25$ °C, $V_{DD} = 5.0$ V/3.3 V(PC/SC)
Shock resistance	S.R.		$\pm 20 \times 10^6$ Max.		Three drops on a hard board from 750 mm or excitation test with 29400 m/s ² x 0.3 ms x 1/2sine wave in 3 directions

Note: • Please contact us for inquiries about operating temperature(-40 °C to +85 °C), usable frequencies, duty and output load conditions. Checking possible by the Frequency Checking Program.

<http://www.epson.co.jp/CRYSTAL/>

External dimensions

(Unit: mm)



Recommended soldering pattern

(Unit: mm)

