

CRYSTAL OSCILLATORS UNIT SPECIFICATION

HELE P/N : SSR012000F3CHC-T

Customer :

Customer P/N:

Date : 2013/07/02

Type Name : HSO751S

Output Frequency : 12.000000 MHz

Absolute Maximum Ratings :

Item	Symbol	Value	Unit
Vdd terminal voltage	Vdd	-0.5 ~ 7.0	V
Input terminal voltage	Vcont	-0.5 ~ Vdd+0.5	V
Output terminal voltage	Vout	-0.5 ~ Vdd+0.5	V
Output terminal current	Iout	15	mA
Storage temp. range	Tstr	-55 ~ 125	°C

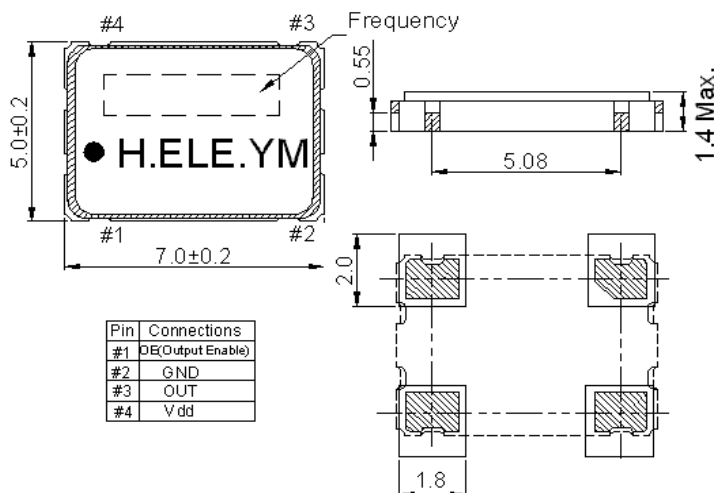
Electric Specifications :

Item	Symbol	Value			Unit	Condition		
		Min	Typ	Max		Vdd	Temp	
Frequency tolerance	$\Delta f/F$	-30	-	+30	ppm	3.3+/-0.3V	-40~+85°C	
Operating temp. range	Topr	-40	25	+85	°C			
Supply voltage	Vdd	3.0	3.3	3.6	V	3.3	25+/-3°C	
Current consumption 1 (#1 pin: open or "H")	Idd1	-	-	25	mA			
Current consumption 2 (#1 pin: "L" level)	Idd2	-	-	0.02	mA			
Symmetry	Duty	40	50	60	%			
Low level output voltage	Vol		-	0.1xVdd	V			
High level output voltage	Voh	0.9xVdd	-	-	V			
Rise & Fall time	Tr & Tf	-	-	10	ns			
Pin #1 options		YES						
Output load		CL=15pF (Idd1, Idd2 test at No Load)						
Low level input current	Iil	-	-	-150	uA	3.3	25+/-3°C	
High Level input current	Iih	-	-	100	uA			
Low level input voltage	Vil	-	-	0.3xVdd	V			
High level input voltage	Vih	0.7xVdd	-	-	V			
Output disable time	Tplz	-	-	100	nsec			
Output enable time	Tpzl	-	-	5	ms			
Aging	-	-5	-	5	ppm/year			

F : Output Frequency Δf = Oscillation Frequency - F

Frequency Stability is inclusive of 25°C

Tolerance, operating temperature range, input voltage change, Load chang, first of aging , shock and vibration.



Marking :

Lot No. :

Year : Last digit of the year

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Code	0	1	2	3	4	5	6	7	8	9

Month : Alphabet assign below

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

Marking : Laser marking or Ink marking.



HARMONY ELECTRONICS CORP.