

XTL2085

**4.096000
Crystal Unit**



HC49SMD

Features:

- Good Frequency Perturbation and Stability over temperature
- Moisture Sensitivity Level (MSL) : Level-1

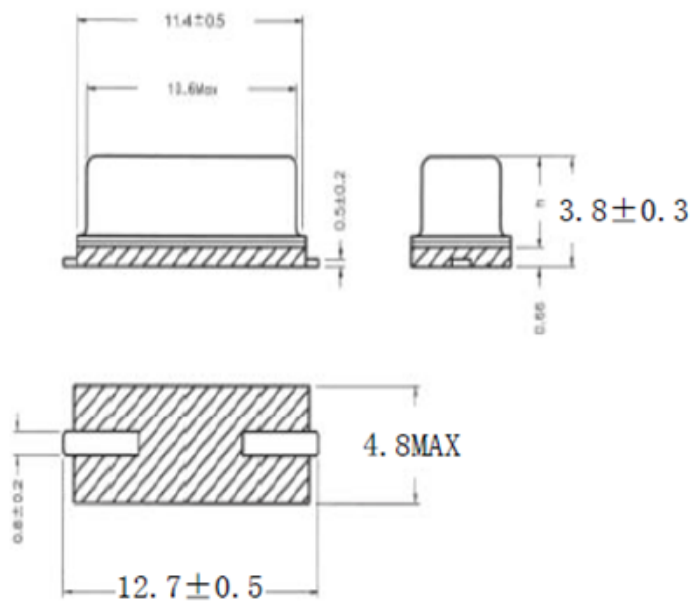
Description and Applications:

HC49SMD crystal unit for use in wireless telecommunications devices

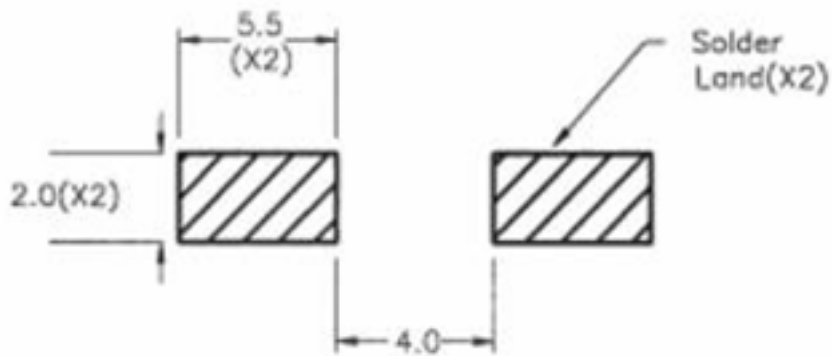
Electrical Specifications:

XTL2085	Specification
Nominal Frequency	4.096000MHz
Mode of Oscillation	Fundamental
Storage Temperature Range	-40°C~+85°C
Operating Temperature Range	-40°C~+85°C
Frequency Stability over Operating Temperature Range	+/-30 ppm (referred to the value at 25°C)
Frequency Make Tolerance (FL)	+/-30 ppm @ 25°C +/- 3°C
Equivalent Series Resistance (ESR)	100 Ω max
Nominal Drive Level	100 uW typ.
Shunt Capacitance (Co)	7.0 pF max
Load Capacitance (CL)	18 pF
Aging	+/-3.0 ppm/year
Insulation Resistance	500 MΩ min./DC 100V
Marking	Laser marking

Mechanical Dimensions (mm):



Recommended Land Pattern: (unit: mm)



Note: All Dimensions in Millimeters.

Tolerances = ± 0.2

Marking:

Line 1: Frequency (4.096)

Line 2: Product Code + Date Code + Internal Code + Traceability Code



Product Code Table

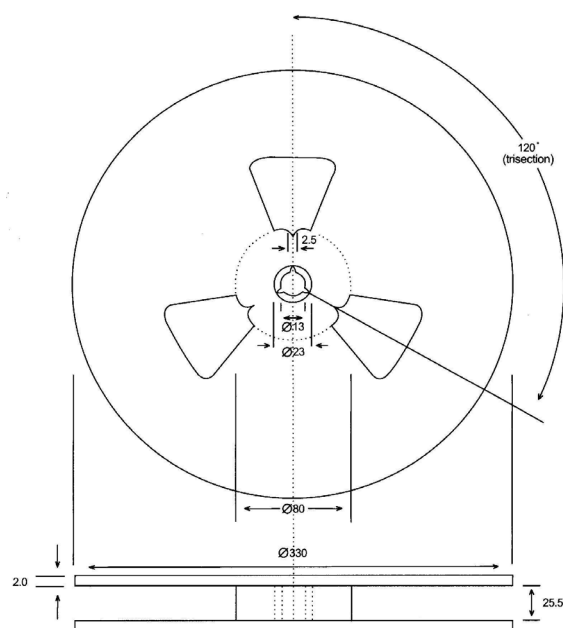
Year	2017	2018	2019	2020
	2021	2022	2023	2024
	2025	2026	2027	2028
Product code	Z	z	<u>Z</u>	<u>z</u>

Date Code Table

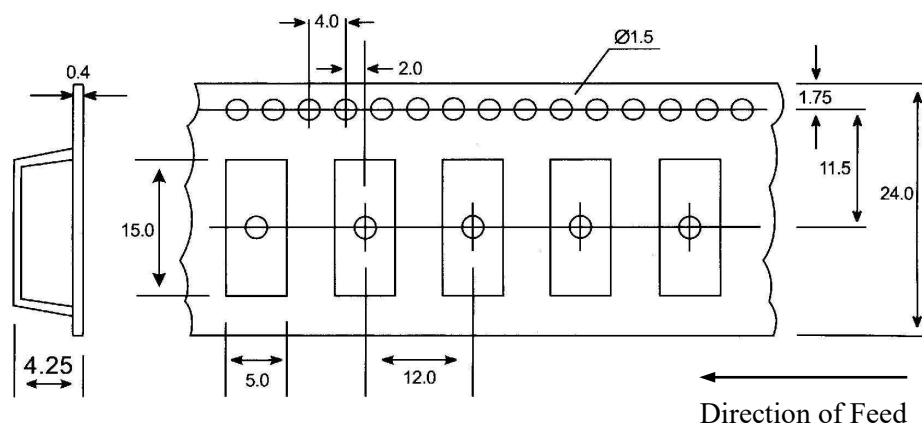
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

PACKING:

1. REEL DIMENSION (Unit: mm)



2. TAPE DIMENSION (Unit: mm)



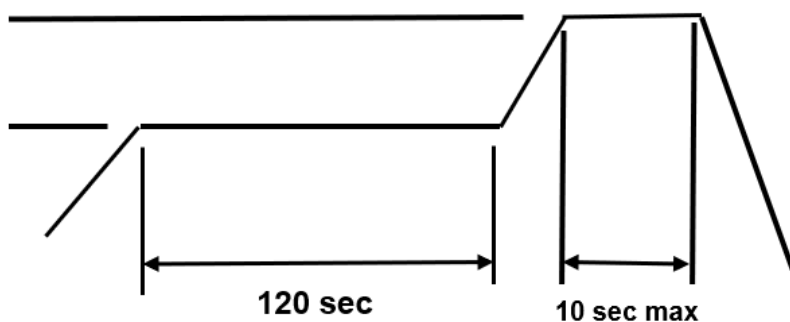
3. PACKING DIRECTION

The 1st letter of marking ("1") should be closed to the hole of tape.

Reflow Profile:

260 °C ± 5 °C

150 °C ± 10 °C



Note: 1. Max peak temperature: 260+/-5 deg C; Time: 10+/-2 sec

2. Temperature: 150+/-10 deg C; Time: 120 sec

Reliability Specifications

Test name	Test process / method	Reference standard
Mechanical characteristics		
resistance to Soldering heat (IR reflow)	Temp./ Duration : 265°C /10sec ×2 times Total time : 4min.(IR-reflow)	EIAJED-4701 -300(301)M(II)
Vibration	Total peak amplitude : 1.5mm Vibration frequency : 10 to 2000 Hz Sweep period : 20 minute Vibration directions : 3 mutually perpendicular Duration : 2 hr / direc.	MIL-STD 202G method 204
Mechanical Shock	directions : 3 impacts per axis Acceleration : 3000g's, +20/-0 % Duration : 0.3 ms (total 18 shocks) Waveform : Half-sine	MIL-STD 202G method 213
Solderability	Solder Temperature:265±5°C Duration time: 5±0.5 seconds.	J-STD-002
Environmental characteristics		
Thermal Shock	Heat cycle conditions -40 °C (30min) ↔ 85 °C (30min) * cycle time : 10 times	MIL-STD 883G method 1010.8
Humidity test	Temperature : 85 ± 2 °C Relative humidity : 85% Duration : 96 hours	MIL-STD 202G method 103
Dry heat (Aging test)	Temperature : 125 ± 2 °C Duration : 168 hours	MIL-STD 202G method 108A
Cold resistance (Low Temp Storage)	Temperature : -40 ± 2 °C Duration : 96 hours	IEC 60068-2-1