Shoulder

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CRYSTAL Data Sheet

PRODUCT 产 品: CRYSTAL

MODEL NO 型 号: SOC7

DATE 日 期: 2008-01-25

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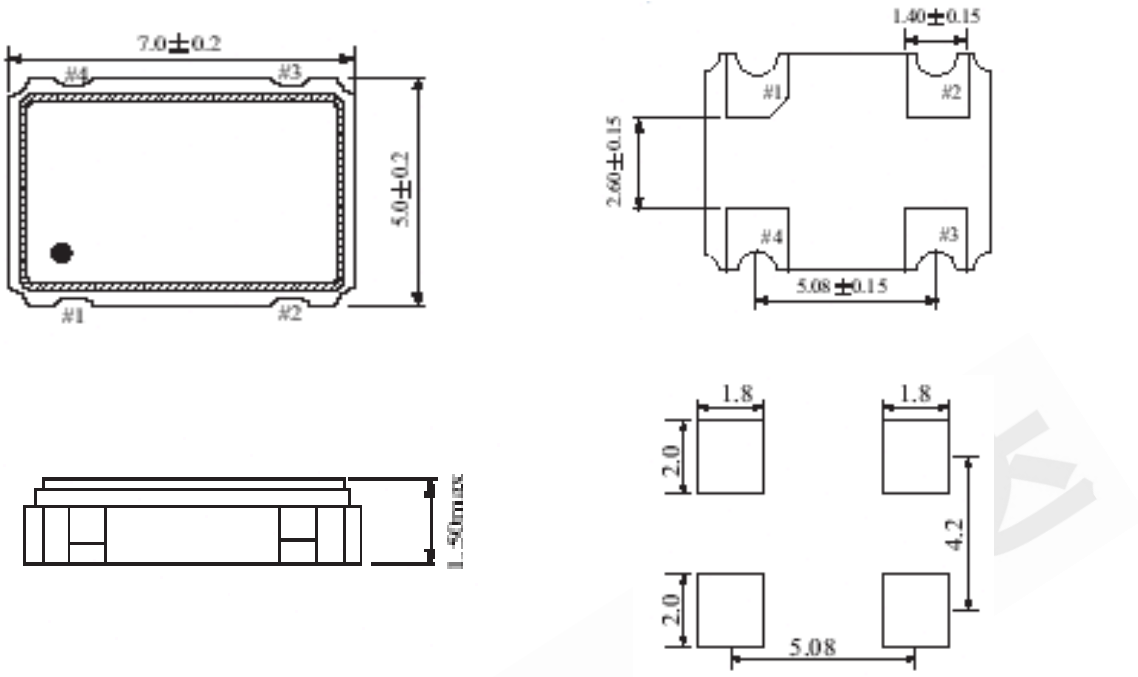
1. Electrical characteristics

Parameter		Condition
Frequency range :		1.000−100.000MHZ
Frequency stability vs.	Make tolerance: (25℃±3℃)	±100ppm max
	Operating temperature:	±100ppm max
	Power change: (±10%)	≤±5ppm
	Load change: (±10%)	≤±5ppm
Temperature range	Operation:	-10℃~+60℃
	Storage:	-30℃~+85℃
Power Supply	Voltage:	+3.3V_{DC}±10%
	Current:	≤30mA
Output	Symmetry: (at 50% V_{DD})	40%~60% (1/2 V_{DD})
	Load:	CL=15Pf / 1-10LS TTL
	Rise time: (10% V_{DD} ~90% V_{DD})	10ns Max
	Fall time: (90% V_{DD}~10% V_{DD})	10ns Max
	V_{OH}:	≥90% V_{DD}
	V_{OL}:	≤10% V_{DD}
Aging:		≤±3ppm/first year
Start-up time :		10ms(Max)

2.Dimension (mm)

Bottom view

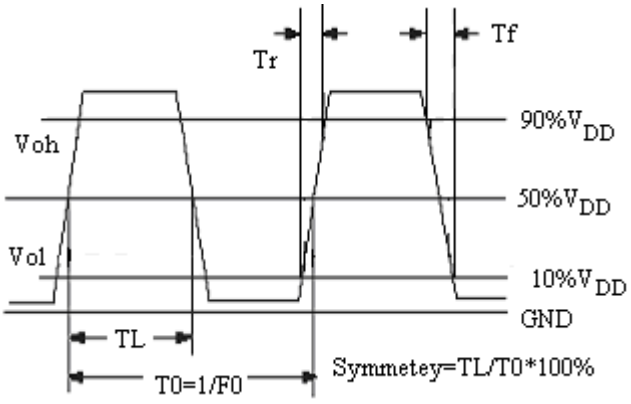


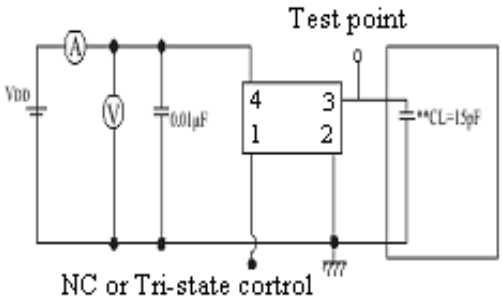
Note: A 0.01μF bypass capacitor should be placed between V_{DD} and GND to minimize power supply line noise.

Pin connection

Pin	Connection
1	NC or Tri-state
2	Case GND
3	Output
4	V_{DD}

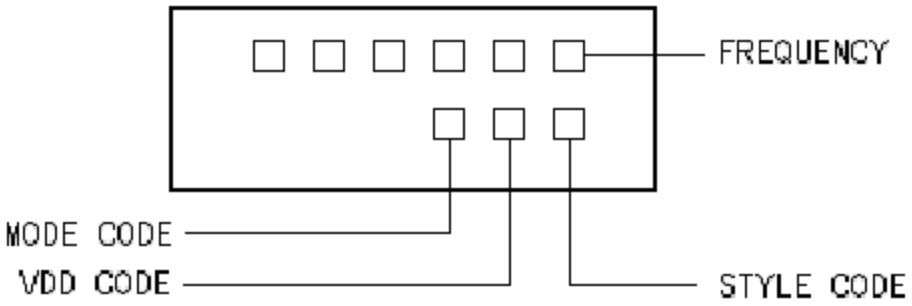
Output waveform & test circuit





** Include stray and probe capacitance

3.Marking



MODE CODE:

MODE	AT fund	AT 3rd	DIVIDED	TIMES
CODE	A	R	D	T

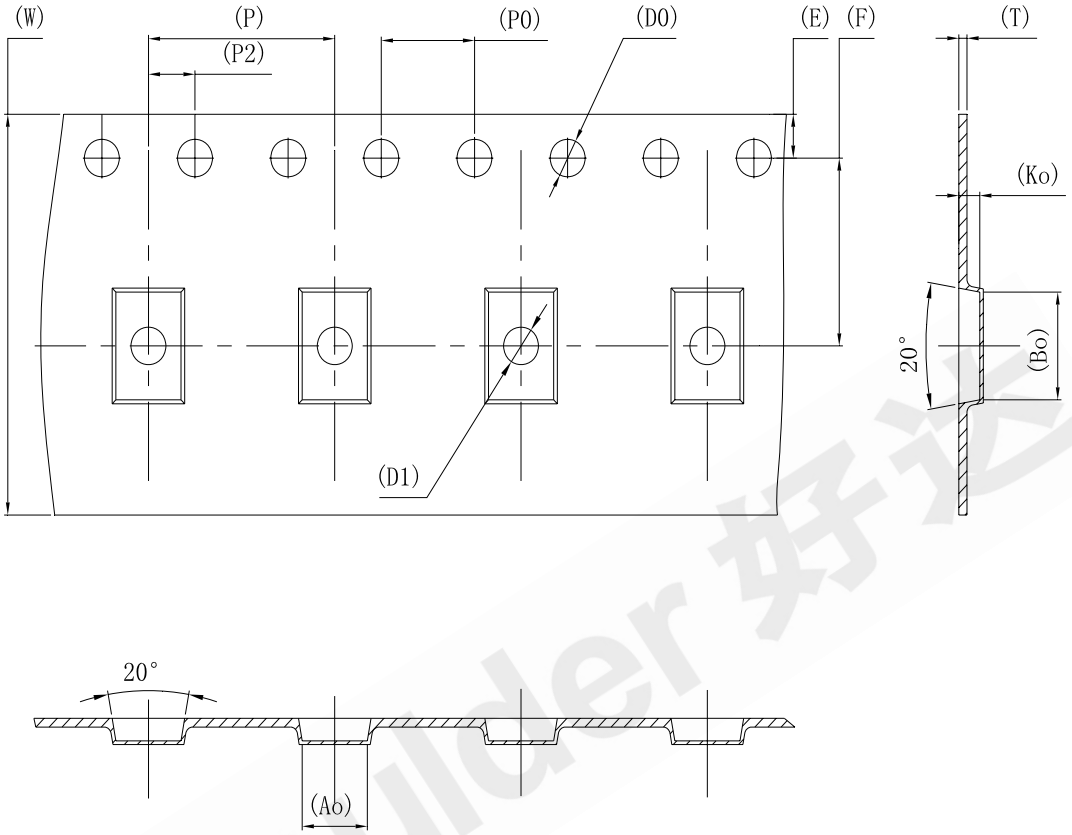
VDD CODE:

VDD	3. 3V	5. 0V	2. 5V	其它
CODE	3	5	2	Z

STYLE CODE:

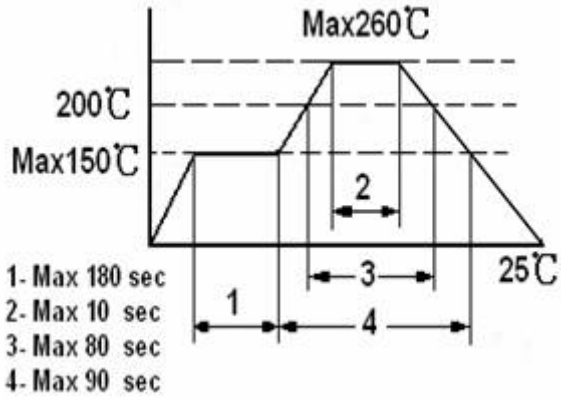
STYLE	OSCILLATOR	VCXO	TCXO	VC-TCXO
CODE	O	V	T	X

4.Packing Specification



W	16.00±0.05	P	8.00±0.10	A0	5.40±0.10	B0	7.40±0.10
S		P0	4.00±0.10	A1		B1	
E	1.75±0.10	P2	2.00±0.10			B2	
F	5.50±0.10	D0	ø1.50$^{+0.10}_{0}$	K0	1.10±0.10		
T	0.35±0.05	D1	ø1.50 MIN	K1			

5.Reliability Specification

	Item	Condition	Standard
1.	Drop characteristics	Free drop from 50cm height on a hard wooden board for 3 times. (Board is thickness more than 30 mm.)	Frequency change: ≤±5ppm
2..	Shake characteristics	Shake frequency 10~55Hz, cyc1~2 minutes, swing 1.5mm, direction x/y/z, all 30 minutes, test after 1 hours.	Frequency change: ≤±5ppm
3.	Weld characteristics	235±5℃, 3 seconds	95% exhibit tin ok
4.	Humidity characteristics	+40±2℃ & 90%~95% R.H. 250 hours	Frequency change: ≤±5ppm
5.	Low temperature characteristics	-30±2℃, 250 hours, put in room temperature, test after 1 hours.	Frequency change: ≤±5ppm
6.	High temperature characteristics	+85±2℃, 250 hours, put in room temperature, test after 1 hours.	Frequency change: ≤±5ppm
7.	Temperature cycling	-30±3℃/30±3 min~+85±2℃/30±3min, 5 cycles	Frequency change: ≤±5ppm
8.	Refluence examination		Frequency change: ≤±5ppm