



广东惠伦晶体科技股份有限公司
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PRODUCT SPECIFICATION SHEET

CUSTOMER : _____
PRODUCT TYPE : SMD X`TAL 2.0*1.2
NOMINAL FREQ. : 32.768kHz
FL P/N : 2SQ3270006-Q
REVISION : S0
CUSTOMER P/N : _____

CUSTOMER'S APPROVAL&DATE

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FL CORPORATION

APPROVED	CHECKED	DESIGNED
Jay Lee	Jin Qi	Chen XuanRu

RoHS Compliant



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ATTACHMENT (optional)

- | | | | |
|------------------------------------|---|------------------------------|--|
| • ELECTRICAL CHARACTERISTICS TEST | A | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| • TEMPERATURE CHARACTERISTICS TEST | B | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |

ELECTRICAL SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 kHz
FREQUENCY TOLERANCE AT 25°C	±20 PPM MAX
TURNOVER TEMPERATURE	25°C ± 5°C
TEMPERATURE CHARACTERISTICS(25°C±5)	$(-0.03±0.01) \times 10^{-6}/^{\circ}\text{C}^2$
LOAD CAPACITANCE	12.5 pF
EQUIVALENT SERIES RESISTANCE	55 kΩ MAX
DRIVE LEVEL	0.1±0.01μW
MAXIMUM DRIVE LEVEL	1μW max.
SHUNT CAPACITANCE	1.9pF typ. (at 1MHz)
MOTIONAL CAPACITANCE	9.9fF typ.
AGING (FIRST YEAR,AT 25°C)	±3 PPM
INSULATION RESISTANCE	500 MΩ MINIMUM
OPERATING TEMPERATURE RANGE	-40°C to +85°C
STORAGE TEMPERATURE RANGE	-40°C to +85°C
SHOCK RESISTANCE	±5ppm max 75 cm drop test in 3 axes onto a hard surface or 3000gx0.3msx1/2 sinewave in 3 axes

ENVIRONMENTAL

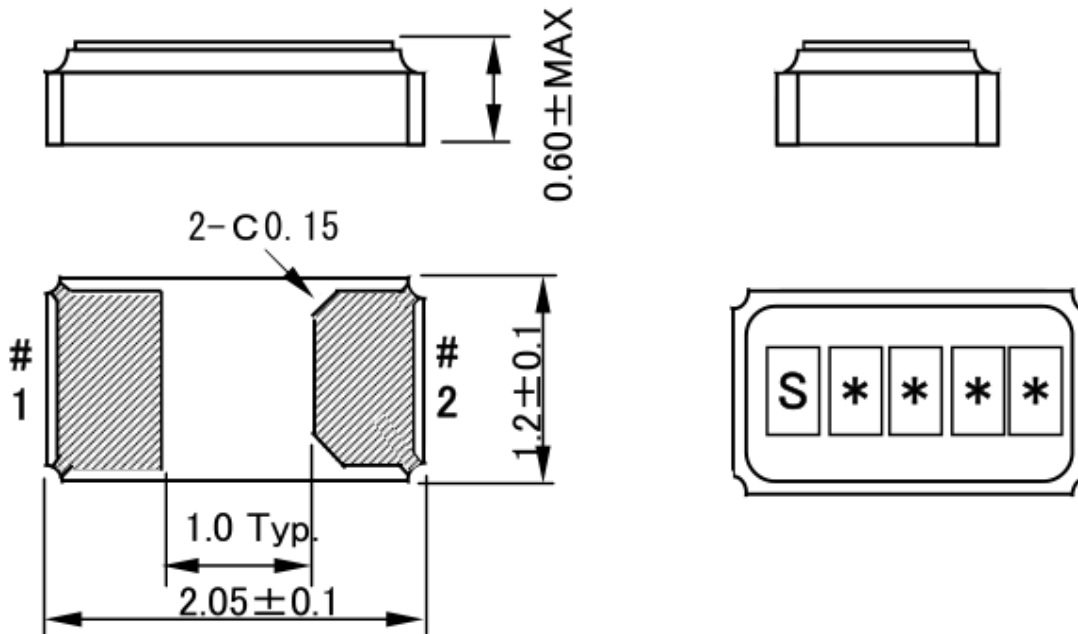
PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS-2	5/6 COMPLIANT, EXEMPTION 7a
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Sn





DIMENSIONS AND MAKING LAYOUT

1.Out Line Drawing

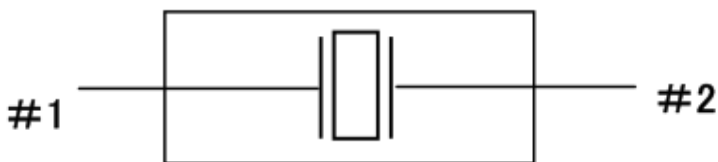


2.MARKING



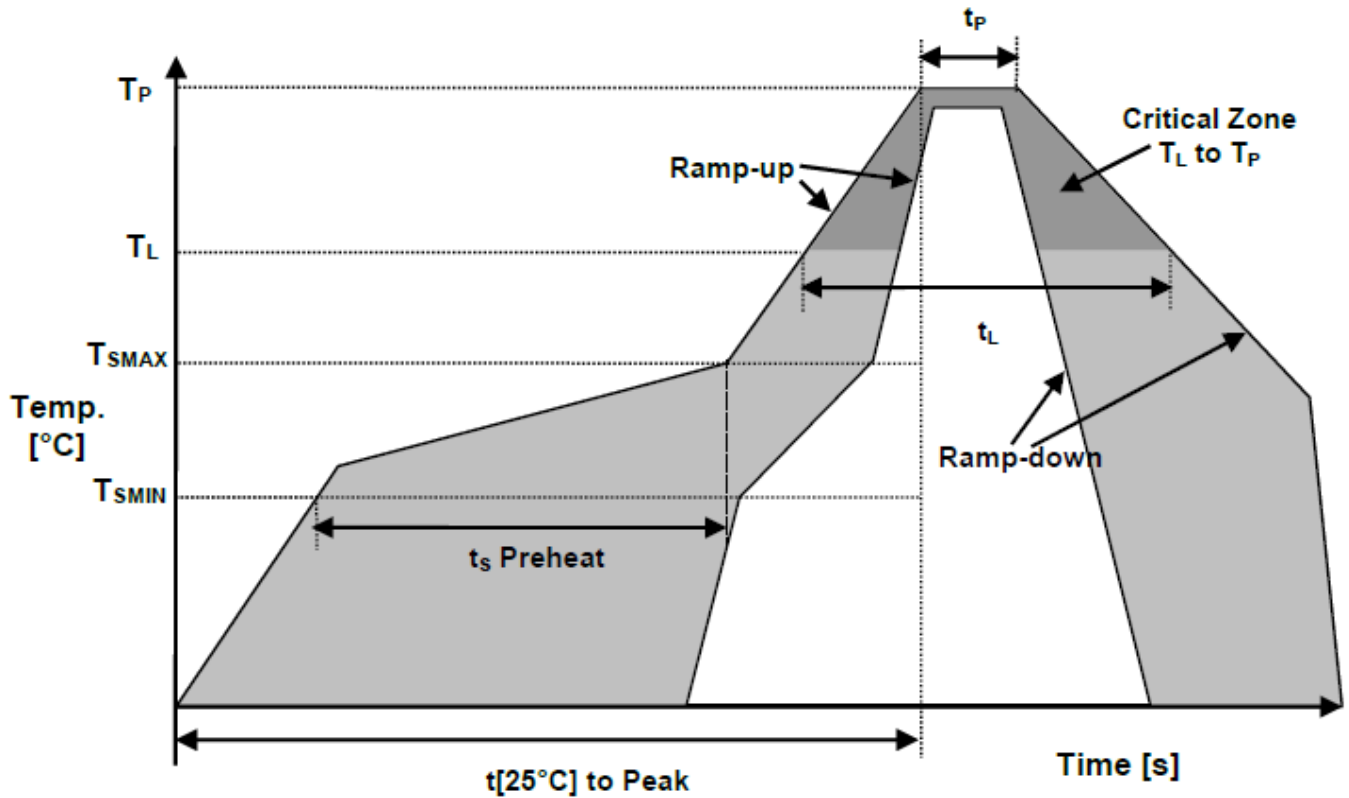
- *1 Specification
- *2 CL (7pF: B、9pF: J、12.5pF: F)
- *3 Year of Production(Last digit of year)
- *4,5 Week of Production(01~ 52)

3.Lead Connection





REFLOW PROFILE





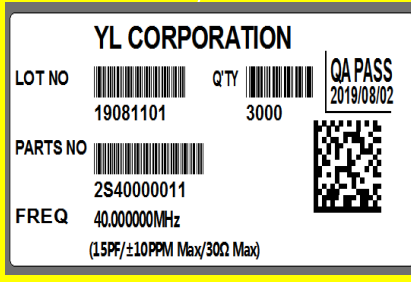



Reflow profile		
Temperature Min Preheat	T_{SMIN}	150°C
Temperature Max Preheat	T_{SMAX}	200°C
Time (TSMIN to TSMAX)	t_s	60-180 sec.
Temperature	T_L	217°C
Peak Temperature	T_P	260°C
Ramp-up rate	R_{UP}	3°C/s max.
Ramp-down rate	R_{DOWN}	6°C/s max.
Time within 5°C of Peak Temperature	t_p	10 s
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 s
Time	t_L	60-150 s

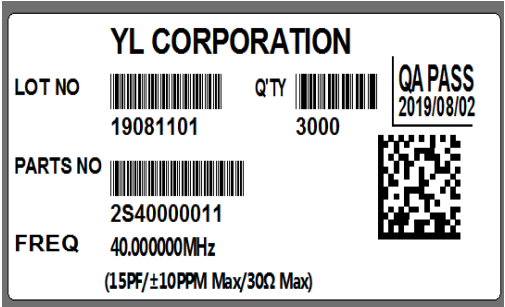


SMD PRODUCT PACKING STANDARD

Out-going packing instruction

Reel Packing	Inner Packing	Carton
name: reel standard: diameter 18cm material: plastics	name: inner box standard: L19.0xW19.0xH2.5cm material: B corrugated paper	name: carton standard: L34.0xW22.0xH22.0cm material: AB corrugated paper(10 boxes enter)
		
		

The label instruction

Label Drawing	Mark	Name of Article	Spec.	Size	Printing
	L1	条码标签 Bar Code Label (Chintz Paper)	1.Date Code 2.Lot No. 3.Part No. 4.Freq 5.Q'ty	75x35mm	White

Remark

Specifications on the label is for the use of templates with different product specifications may vary. If customer specified requirements for labels packaging. please provide the operation procedure.



惠伦晶体
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