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

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PERICOM saRonix-eCera

PSE Technology Corporation

SPECIFICATION FOR APPROVAL

CUSTOMER	
NOMINAL FREQUENCY	32.768 KHz
PRODUCT TYPE	**TYPE G1 TUNING FORK X'TAL**
SPEC. NO. (P/N)	G13270009
CUSTOMER P/N	
ISSUE DATE	Jun.24,2011
VERSION	A

APPROVED	PREPARED	QA
		
APPROVED BY CUSTOMER :		**AVL Status**
Please return one copy with approval to PSE-TW		

PSE Technology Corporation

No.2, Tzu-Chiang 5th Rd, Chung Li Industrial Park,
Chung Li City, Taoyuan County, Taiwan (R.O.C.)
TEL: 886-3-451-8888
FAX: 886-3-461-3865
http://www.saronix-ecera.com.tw

*RoHS Exception
*HF-Halogen Free
*REACH Compliant

*** *A company of* PERICOM *Semiconductor Corporation* ***

VERSION HISTORY

Version No.	Version Date	Customer Receipt Date	Supplier Receipt Date	Description	Notes
A	Jun.24,2011			Initial Release	

TYPE G1 TUNING FORK X'TAL

G13270009

VER. A 24-Jun-11

ELECTRICAL SPECIFICATIONS

SRe Part Number : G13270009

Parameters	Symbol	Specifications	Units	Notes
Nominal Frequency	Fn	32.768	KHz	
Mode of Oscillation	MO	Fundamental		+2° X-Cut
Load Capacitance	CL	12.5	pF	Typical
Calibration Tolerance		± 20	ppm	at 25℃ ± 5℃
Operating Temperature Range	TR	-40~85	°C	
Drive Level	DL	1	μW	Max.
Equivalent Series Resistance	ESR	35	KΩ	Max.
Shunt Capacitance C0	C0	1.6	pF	Typical
Temperature Coefficient	K	-0.035	ppm/°C^2	Typical
Aging		± 3	ppm	Max 1st year
Insulation Resistance		500	MΩ	at DC 100V ± 15V

Reliability (Mechanical and Environmental Endurance)

No.	Test Items	Test Method and Condition	Requirements
1	Vibration	(1) Vibration Frequency: 10 to 55Hz (2) Vibration Amplitude: 1.5mm (3) Cycle Time: 1-2min(10-55-10Hz) (4) Direction: X.Y.Z (5) Duration: 2h/each direction	Frequency Change: ±10ppm Max. Resistance Change: 5kohm Max.
2	Shock	3 Times free drop from 75cm height to hard wooden board of thickness more than 30mm	Frequency Change: ±10ppm Max. Resistance Change: 5kohm Max.
3	Leakage	Put crystal units into a hermetic container and Helium for 0.5-0.6Mpa, and keep it for 1h; Check the leakage by a Helium leak detector	Leakage: 1x10^{-8}Pa·m1/s Max.

4	Lead Strength (DIP)	The crystal lead with the 0.9kg(9N) power (keep it for 30s±5s) and bend the crystal lead 90° with 0.45kg power and two times （which you want to bend should be more than 1.5mm from the case)	The crystal lead is not abnormity
5	High Temperature Endurance	The crystal units shall be put in somewhere for 2 hrs at temperature of 85℃±2℃, then keep it for 1 to 2 hrs under room temperature.	Frequency Change: ±10ppm Max. Resistance Change: 5kohm Max.
6	Low Temperature Endurance	The crystal units shall be put in somewhere for 2 hrs at temperature of -25℃, then keep it for 1 to 2 hrs under room temperature.	
7	Humidity Endurance	The crystal units shall be put in somewhere at 40℃ in relative humidity of 90-95% for 48 hrs, then keep it for one or two hours under room temperature.	
8	Temperature Cycle	Temperature shift from low(-40℃) to high(100℃, keep 30 mins), satisfy high(100℃) to low(-40℃, keep 30 mins), then go up to room temperature for 5 cycles.	
9	Salt Spray Test	Put the crystal units in the salt spray room (salt density: 5%) at the temperature of 35℃ for 96 hrs. Then clean it with water and dry its surface.	The appearance shall has no abnormity and soldering is good. Frequency Change: ±10ppm Max. Resistance Change: 5kohm Max.

TYPE G1 TUNING FORK X'TAL

G13270009

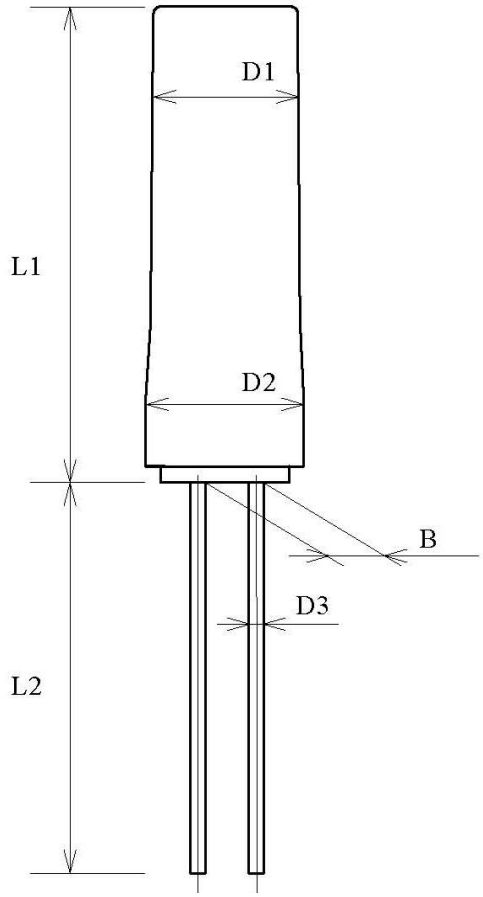
VER. A 24-Jun-11

MARKING

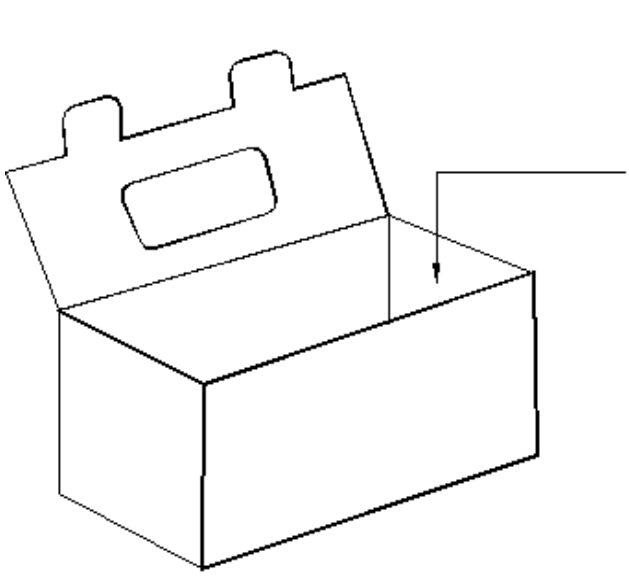
32768

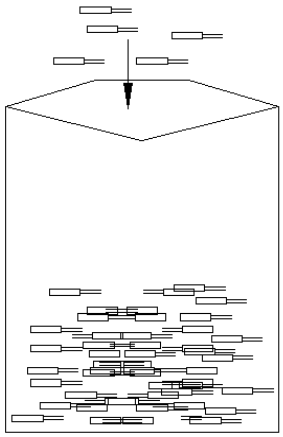
DIMENSIONS (Unit:mm)

L1	8.0±0.2
L2	9.6±0.5
D1	ϕ 3.0±0.1
D2	ϕ 3.0±0.1
D3	ϕ 0.32±0.05
B	0.8±0.2



PACKING





Quantity for Each Bag : 1000 pcs