

# **PSE Technology Corporation**

## SPECIFICATION FOR APPROVAL

CUSTOMER	
NOMINAL FREQUENCY	32.768 KHz
PRODUCT TYPE	G2 Series Cylinder Through Hole Quartz Crystal
SPEC. NO. ( P/N )	G23270023
CUSTOMER P/N	
ISSUE DATE	Nov.6,2015
VERSION	A

APPROVED	PREPARED	QA	
Brenda	Clane	Dong Jang	
APPROVED BY	APPROVED BY CUSTOMER:		
Please return one copy with approval to PSE-TW			

### **PSE Technology Corporation**

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http://www.saronix-ecera.com.tw

\*RoHS Exception

\*HF-Halogen Free

\*REACH Compliant



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

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# G2 Series 2.0x6.0mm Cylinder Through Hole Quartz Crystal G23270023 VER. A 4-Feb-

## **VERSION HISTORY**

Version No.	Version Date	Customer Receipt Date	Supplier Receipt Date	Description	Notes
А	Nov.6,2015			Initial Release	



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# G2 Series 2.0x6.0mm Cylinder Through Hole Quartz Crystal G23270023 VER. A 4-Feb-10

#### **ELECTRICAL SPECIFICATIONS**

SRe Part Number: G23270023

Parameters	Symbol	Specifications	Units	Notes
Nominal Frequency	Fn	32.768	KHz	
Mode of Oscillation	МО	Fundamental		+2° X-Cut
Drive Level	DL	1	μW	Max.
Load Capacitance	CL	12.5	pF	Typical
Frequency Tolerance	FT	±20	ppm	at 25℃ ± 5℃
Operating Temperature Range	TR	-10 to +60	°C	
Equivalent Series Resistance	ESR	35	ΚΩ	Max.
Shunt Capacitance C0	C0	1.5	pF	Typical
Temperature Coefficient	K	-0.04	ppm/°C2	Max.
Aging		± 3	ppm	Max 1st year
Insulation Resistance		500	ΜΩ	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	Frequency Change: ±10ppm Max.
		(2) Vibration Amplitude: 1.5mm	Resistance Change:5kohm Max.
		(3) Cycle Time: 1-2min(10-55-10Hz)	
		(4) Direction: X.Y.Z	
		(5) Duration: 2h/each direction	
2	Shock	3 Times free drop from 75cm height to hard wooden	Frequency Change: ±10ppm Max.
		board of thickness more than 30mm	Resistance Change:5kohm Max.
3	Leakage	Put crystal units into a hermetic container and	Leakage: 1x10 <sup>-</sup> 8Pa·m1/s Max.
		Helium for 0.5-0.6Mpa, and keep it for 1h;	
		Check the leakage by a Helium leak detector	



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# **G2 Series 2.0x6.0mm Cylinder Through Hole Quartz Crystal**

G23270023

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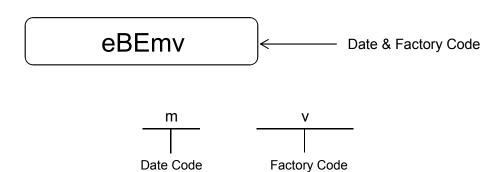
4	Lead Strength	The crystal lead with the 0.9kg(9N) power (keep it for	The crystal lead is not abnormity
	(DIP)	30s±5s) and bend the crystal lead 90° with 0.45kg	
		power and two times	
5	High Temperature	The crystal units shall be put in somewhere for 2 hrs	Frequency Change: ±10ppm Max.
	Endurance	at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

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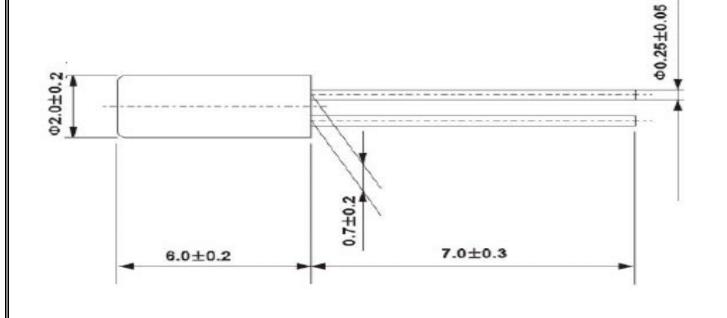
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#### **MARKING**



#### **DIMENSIONS** (Unit:mm)

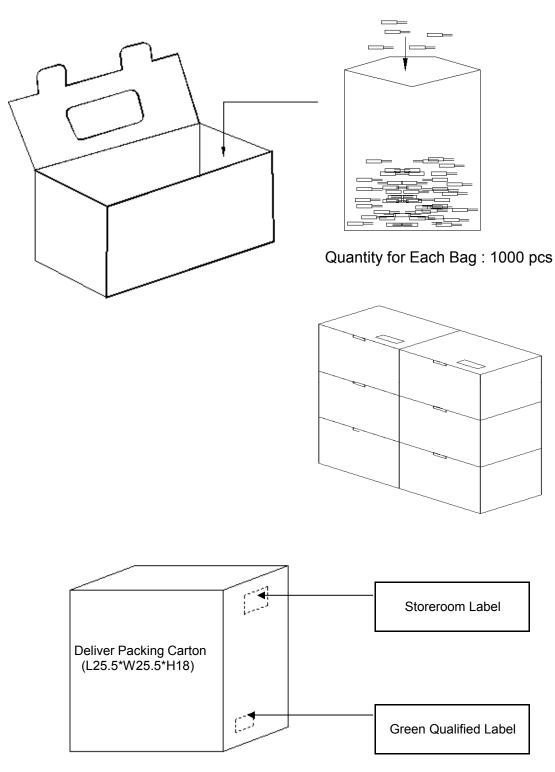




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# G2 Series 2.0x6.0mm Cylinder Through Hole Quartz Crystal G23270023

### **PACKING**





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## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Pericom: G23270023