

## **PSE Technology Corporation**

## SPECIFICATION FOR APPROVAL

CUSTOMER	
NOMINAL FREQUENCY	12.000000 MHz
PRODUCT TYPE	TYPE GC 49S SMD QUARTZ CRYSTAL
SPEC. NO. ( P/N )	GC1200050
CUSTOMER P/N	
ISSUE DATE	June 14, 2016
VERSION	Α

APPROVED	PREPARED	QA
Brenda	Viktor Lu	Dong Jang
APPROVED BY CUSTOMER:		AVL Status
Please return one copy with approval to PSE-TW		

#### **PSE Technology Corporation**

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

\*RoHS Compliant

\*HF-Halogen Free

\*REACH Compliant



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

VER. A 14-Jun-16

### **VERSION HISTORY**

Version No.	Version Date	Customer Receipt Date	Supplier Receipt Date	Description	Notes
Α	Mar.11,2009			Initial Release	
В	Jun.14,2016			Updated Suggested IR Reflow Profile & Format	

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#### **ELECTRICAL SPECIFICATIONS**

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fn	12.000000	MHz	
Mode of Oscillation	MO	AT Cut-Fundamental		
Calibration Load Capacitance	CL	16	pF	
Calibration Tolerance	FL	±30	ppm	at 25°C±3°C
Operating Temperature Range	TR	-10 to +60	°C	
Frequency Stability (Frequency Deviation over the Operating Temperature Range)	F/T	±50	ppm	Reference to the Frequency at 25°C
Operating Drive Level		100	μW	
Maximum Drive Level		500	μW	
Equivalent Series Resistance	ESR	60	Ω	Max
Shunt Capacitance	C0	7	pF	Max
Aging at 25°C		±5	ppm	Max, 1st year
Storage Temperature		-55 to +125	°C	
Insulation Resistance		500	МΩ	Min

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#### **RELIABILITY SPECIFICATIONS**

#### **MECHANICAL AND ENVIRONMENTAL RATINGS:**

a) FINE LEAK TEST: JESD22-A109 (Condition 1A)

b) GROSS LEAK TEST: JESD22-A109 (Condition C)

c) MOISTURE RESISTANCE: JESD22-A113

d) SHOCK: JESD22-B104 (Condition B)

e) SOLDERABILITY: (RoHS version): J-STD-002

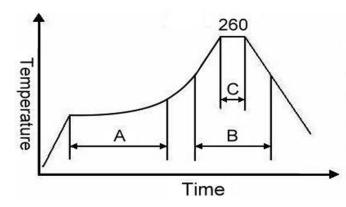
f) VIBRATION: JESD22-B103

g) SOLVENT RESISTANCE: JESD22-B107

h) RESISTANCE TO SOLDERING HEAT (RoHS version): J-STD-020D Table 5.2 Pb free devices (3 cycles max)

#### SUGGESTED IR REFLOW PROFILE

\*As per IPC-JEDEC J-STD-020D



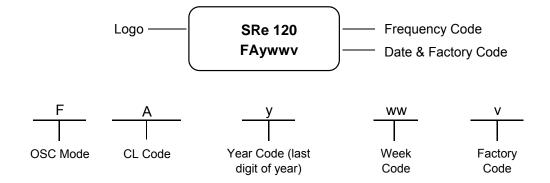
Note:				
	Stage	Temperature	Time	
Α	Preheat	150~200°C	60~120 Sec	
В	Primary Heat	217°C	60~150 Sec	
С	Peak	260°C	10 Sec	

For soldering reflow profile and reliability test ratings go to: <a href="http://www.pericom.com/pdf/sre/reflow.pdf">http://www.pericom.com/pdf/sre/reflow.pdf</a>

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#### **MARKING**



#### MECHANICAL DRAWINGS (Scale: None. Dimensions are in mm.)

