A Product Line of Diodes Incorporated

SPECIFICATION FOR APPROVAL

CUSTOMER	
NOMINAL FREQUENCY	**16.384000 MHz**
PRODUCT TYPE	**TYPE GC 49S SMD QUARTZ CRYSTAL**
PART NUMBER	**GC1630007**
CUSTOMER P/N	
ISSUE DATE	**April 20, 2018**
VERSION	**B**

APPROVED	PREPARED	QA
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Diodes Incorporated

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*RoHS Compliant

*HF-Halogen Free

*REACH Compliant

TYPE GC 49S SMD QUARTZ CRYSTAL

GC1630007

VER.B 20-APR-18

ELECTRICAL SPECIFICATIONS

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fn	16.384000	MHz	
Mode of Oscillation	MO	AT Cut-Fundamental		
Calibration Load Capacitance	CL	18	pF	
Calibration Tolerance	FL	± 30	ppm	at 25°C±3°C
Operating Temperature Range	TR	-40 to +85	°C	
Frequency Stability(Frequency Deviation over the Operating Temperature Range)	F/T	± 30	ppm	Reference to the Frequency at 25°C
Operating Drive Level		100	μW	
Maximum Drive Level		500	μW	
Equivalent Series Resistance	ESR	40	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	MΩ	Min

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

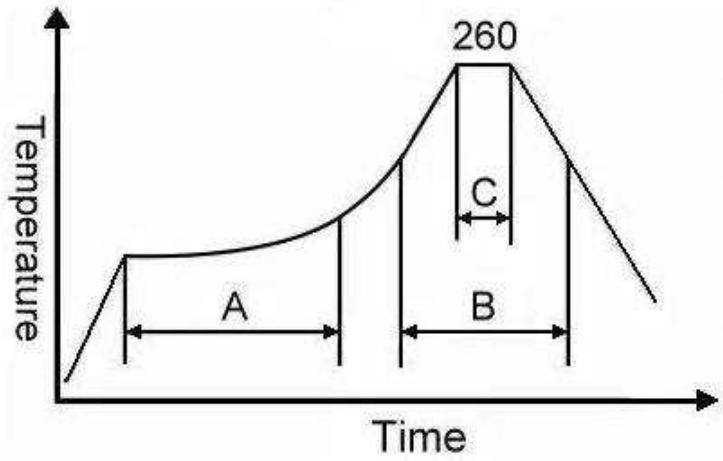
f)VIBRATION: JESD22-B103

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

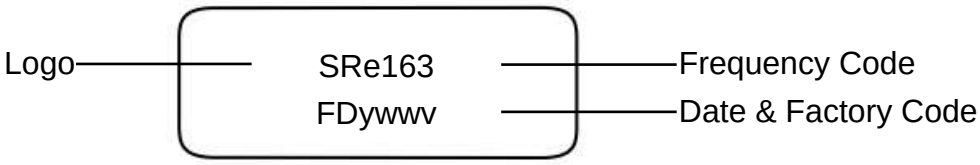
*As per IPC-JEDEC J-STD-020D



Note:

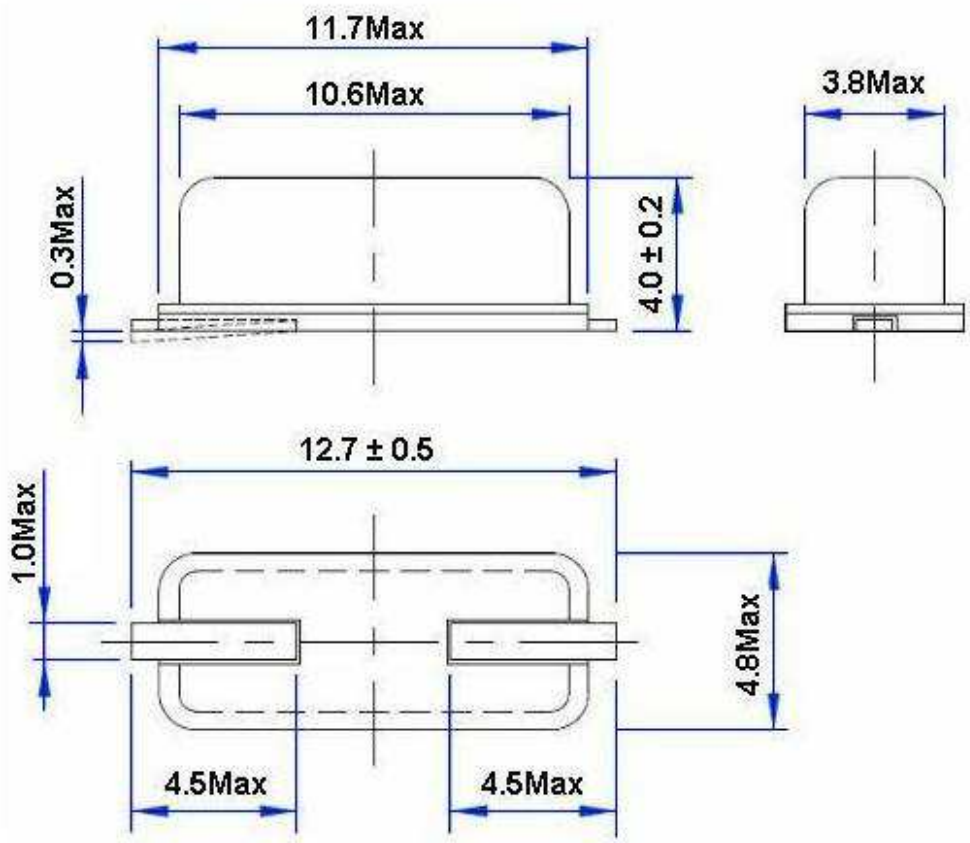
	Stage	Temperature	Time
A	Preheat	150~200°C	60~120 Sec
B	Primary Heat	217°C	60~150 Sec
C	Peak	260°C	10 Sec

MARKING

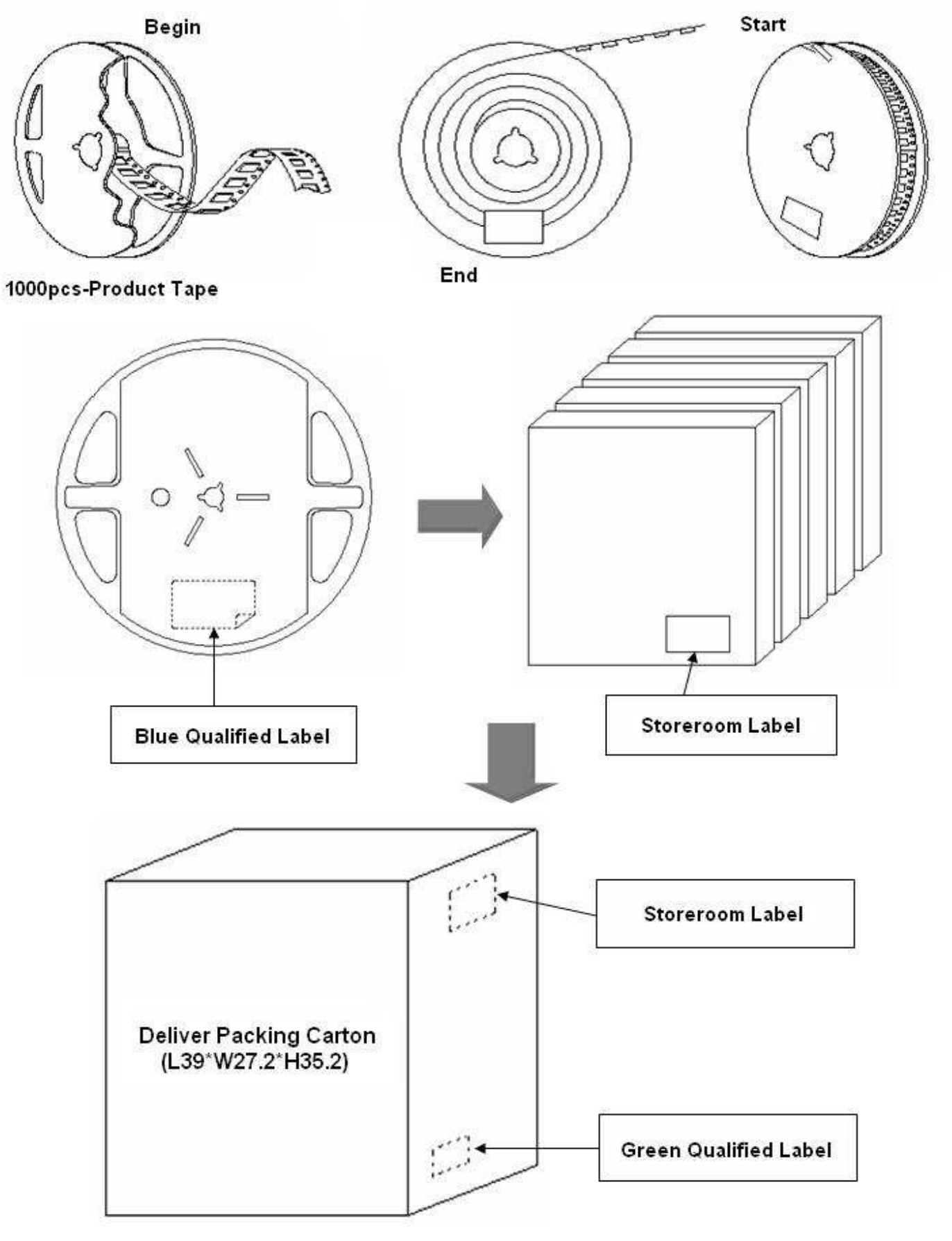


F	D	y	ww	v
OSC Mode	CL Code	Year Code (Last Digit of Year)	Week Code	Factory Code

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



PACKING


Begin
Start
End
1000pcs-Product Tape
Blue Qualified Label
Storeroom Label
Storeroom Label
Deliver Packing Carton
(L39*W27.2*H35.2)
Green Qualified Label

VERSION HISTORY

Version No.	Version Date	Description	Notes
A	Feb. 16, 2012	Initial Release	
B	Apr. 20, 2018	Updated logo	