



A Product Line of  
Diodes Incorporated



## SPECIFICATION FOR APPROVAL

CUSTOMER \_\_\_\_\_

NOMINAL FREQUENCY \_\_\_\_\_ 25.000000 MHz \_\_\_\_\_

PRODUCT TYPE \_\_\_\_\_ **TYPE GC 49S SMD QUARTZ CRYSTAL** \_\_\_\_\_

SPEC. NO. ( P/N ) \_\_\_\_\_ GC2500168 \_\_\_\_\_

CUSTOMER P/N \_\_\_\_\_

ISSUE DATE \_\_\_\_\_ April 27, 2018 \_\_\_\_\_

VERSION \_\_\_\_\_ F \_\_\_\_\_

APPROVED	PREPARED	QA

### Diodes Incorporated

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\*RoHS Compliant  
\*HF-Halogen Free  
\*REACH Compliant



# TYPE GC 49S SMD QUARTZ CRYSTAL

## GC2500168

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### ELECTRICAL SPECIFICATIONS

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fn	25.000000	MHz	
Mode of Oscillation	MO	AT Cut-Fundamental		
Calibration Load Capacitance	CL	10	pF	
Calibration Tolerance	FL	±20	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	±20	ppm	Reference to the Frequency at 25°C
Operating Drive Level		300	µW	
Maximum Drive Level		1000	µW	
Equivalent Series Resistance	ESR	50	Ω	Max
Shunt Capacitance	C0	4 / 7	pF	Typ / Max
C0/C1 Ratio	C0/C1	220 / 250		Typ / Max
Aging at 25°C		±3	ppm	Max, 1st year
Aging at 25°C		±10	ppm	Max, 15 years
3 <sup>rd</sup> Overtone F <sub>L</sub>	F <sub>L_30VT</sub>		ppm	Min
3 <sup>rd</sup> Overtone F <sub>L</sub> Spurs	F <sub>L_30VT_spurs</sub>		ppm	Min
Storage Temperature		-55 to +125	°C	
Insulation Resistance		500	MΩ	Min

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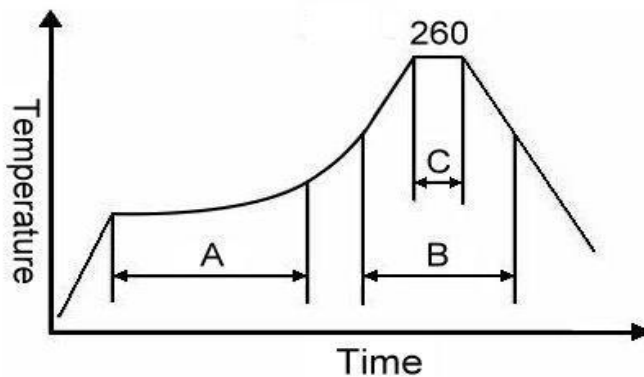
## RELIABILITY SPECIFICATIONS

### 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:

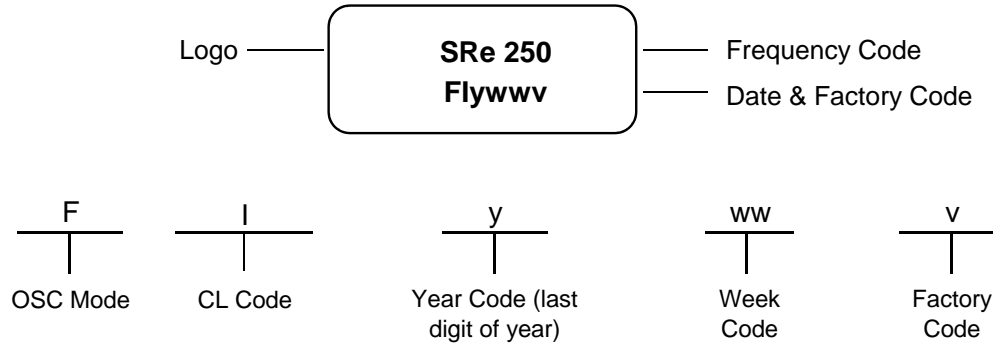
	Stage	Temperature	Time
A	Preheat	150~200°C	60~120 Sec
B	Primary Heat	217°C	60~150 Sec
C	Peak	260°C	10 Sec

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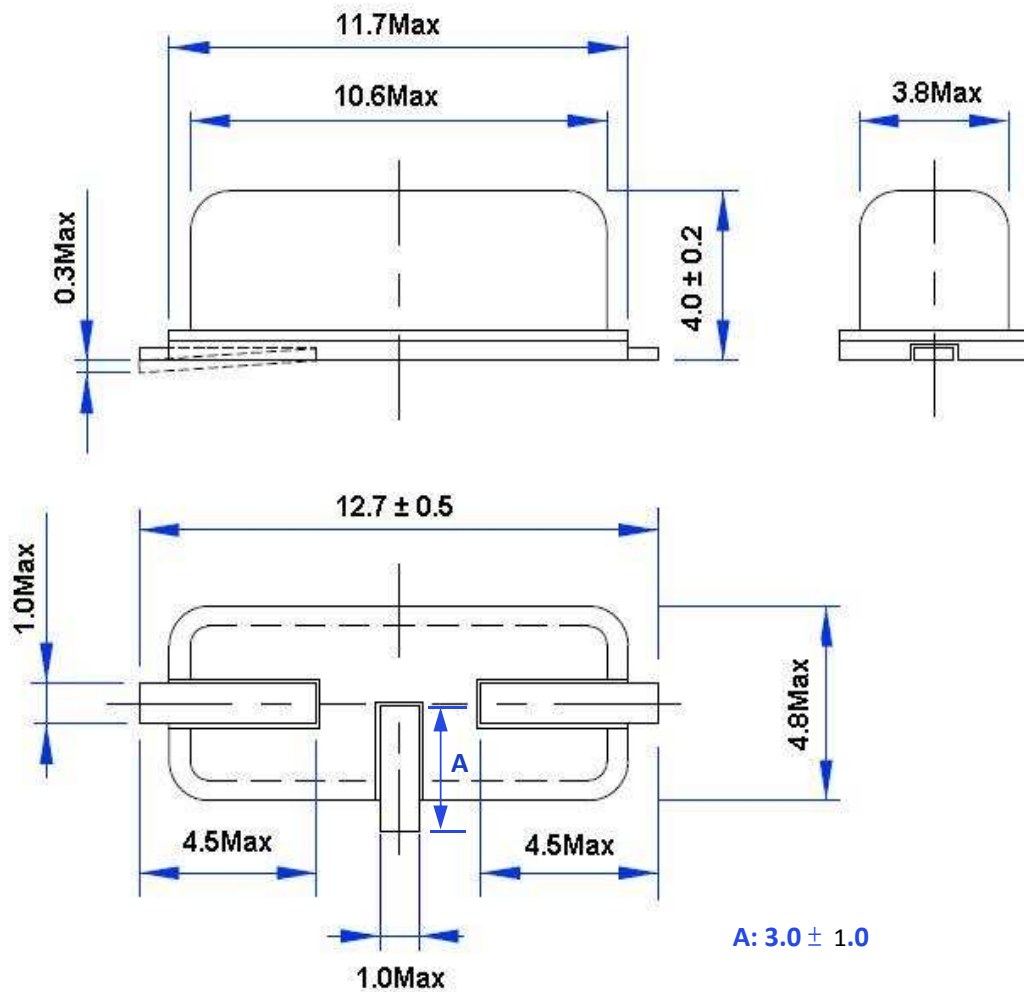
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### MARKING



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

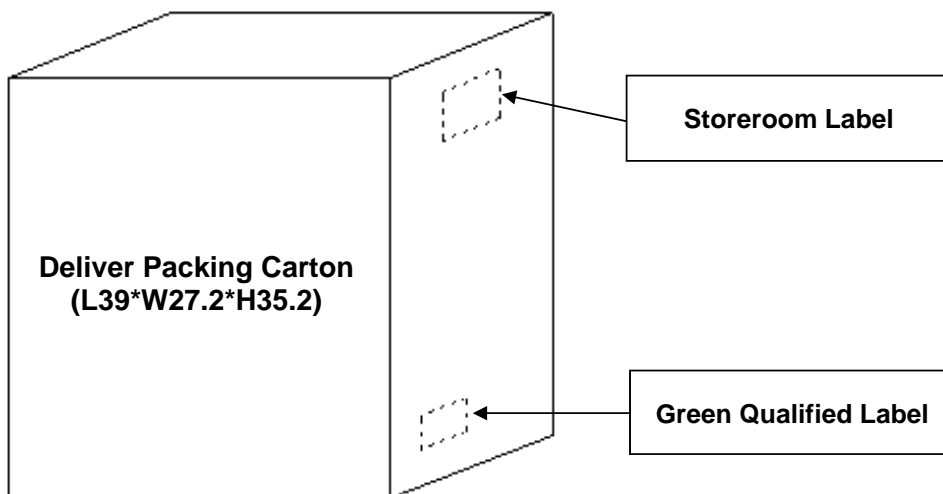
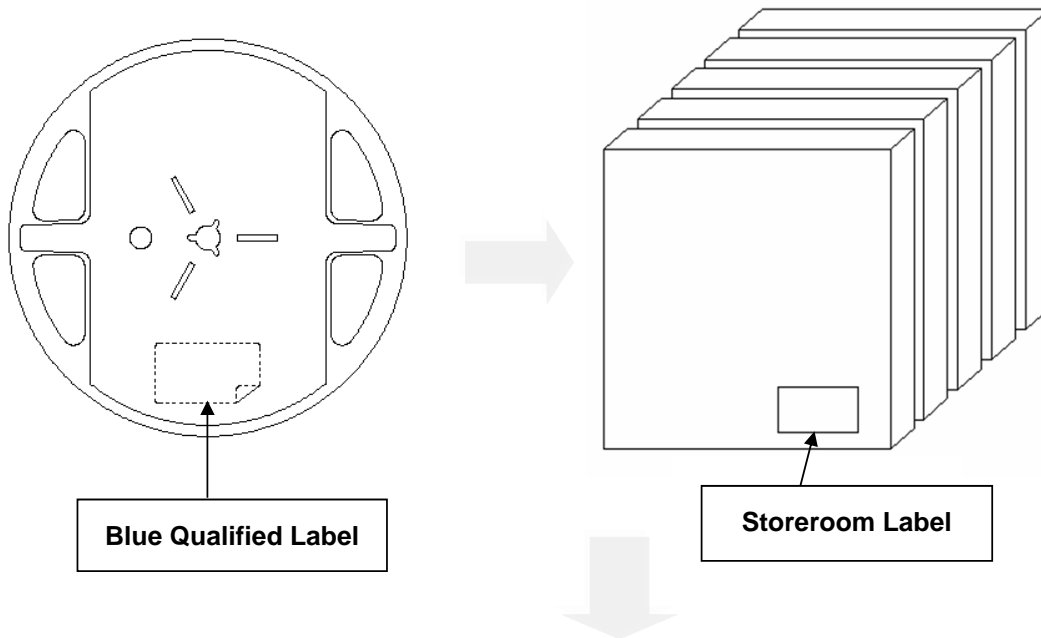
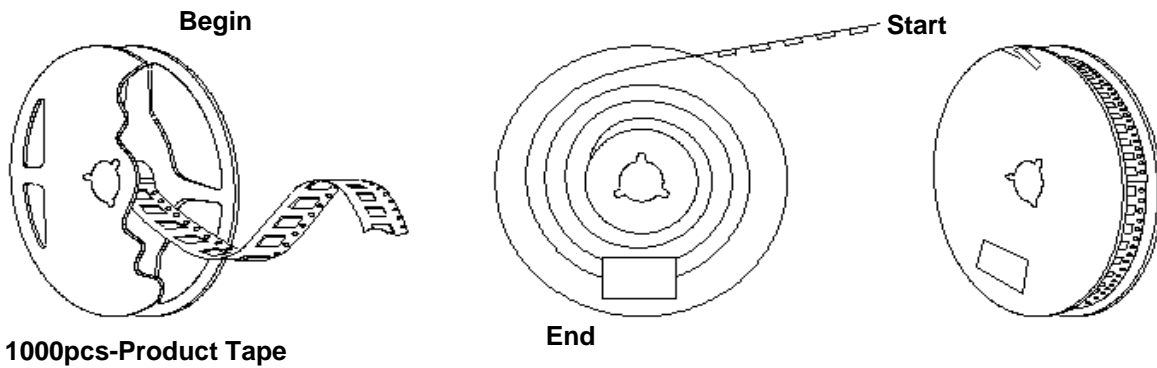


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### PACKING



单击下面可查看定价，库存，交付和生命周期等信息

[>>Diodes Incorporated\(达达科技\(美台\)\)](#)