

ISSUE 14; April 2016

## Description

- Resistance Welded enclosure with truncated height
- -3L 3 Lead
- -3L/SL 3 Lead and Sleeve
- -3L/TW 3 Lead and Top Wire
- -3L/TW/SL 3 Lead, Top Wire and Sleeve
- -SL Sleeve
- -SMD Surface Mount Device
- -TW Top Wire
- -TW/SL Top Wire and Sleeve

## Frequency Parameters

- Frequency 4.0MHz to 270.0MHz
- Frequency Tolerance  $\pm 5.00\text{ppm}$  to  $\pm 100.00\text{ppm}$  @ 25°C
- Tolerance Condition @ 25°C
- Frequency Stability  $\pm 15.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 3\text{ppm}$  typical per year at 25°C

## Electrical Parameters

- Load Capacitance (CL) 10.0pF to 75.0pF
- Shunt Capacitance (C0) 7pF max
- Drive Level 1mW max

## Operating Temperature Ranges

- 0 to 50°C
- -10 to 60°C
- -20 to 70°C
- -30 to 80°C
- -40 to 85°C
- -55 to 105°C
- -55 to 125°C

## Environmental Parameters

- Shock: 981m/s<sup>2</sup>, 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-500Hz, 98.1m/s<sup>2</sup>, 30mins in 3 mutually perpendicular planes
- Storage Temperature Range: -55 to 125°C

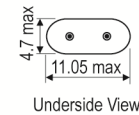
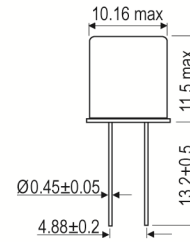
## Ordering Information

- Minimum required\*  
Frequency\*  
Model\*  
Frequency Tolerance (@25°C)\*  
Frequency Stability (over operating temperature range)\*  
Operating Temperature Range\*  
Load Capacitance\*  
Overtone\*
- Example:  
10.0MHz HC49/T  
50/50/-40 to 85C/10 FUND

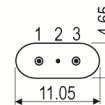
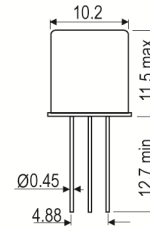
## Compliance

- RoHS Status (2011/65/EU) Compliant
- REACh Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

## Outline (mm)

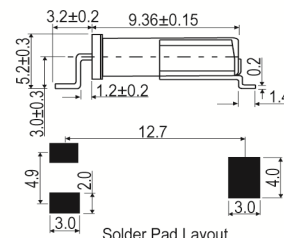
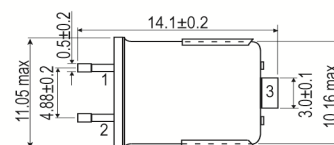


## Outline (mm) -3L = 3 Lead



- Pin Connections
1. Crystal
  2. Case and GND
  3. Crystal

## Outline (mm) -SMD = Surface Mount Device



- Pad Connections
1. Crystal
  2. Crystal
  3. Case & GND

## Sales Office Contact Details:

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Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

#### Packaging Details

- Pack Style: Reel      Tape and reel in accordance with  
Pack Size: 1,000      EAI-481-C
- Pack Style: Ammo    Ammo  
Pack Size: 1,000
- Pack Style: Bulk      Bulk  
Pack Size: 100

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Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
4.0MHz	6.999999MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	Fundamental	100
7.0MHz	9.999999MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	Fundamental	50
10.0MHz	36.0MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	Fundamental	35
21.0MHz	90.0MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	3rd Overtone	40
60.0MHz	150.0MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±50	5th Overtone	70
85.0MHz	210.0MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	7th Overtone	100
110.0MHz	270.0MHz	0 to 50 -10 to 60 -20 to 70	±15 ±20 ±20	9th Overtone	150

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Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
		-30 to 80	±25		
		-40 to 85	±30		
		-55 to 105	±50		
		-55 to 125	±100		

\*Stability Maximum values ±100ppm

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