

**Legacy part - Not recommended for new designs**

#### Standard Specifications

Parameter	Symbol	Specification	Remarks
Frequency Range	$f_0$	200 kHz to 200 MHz	
Frequency Tolerance	$\Delta f/f$	$\pm 5\text{PPM} \sim \pm 50\text{PPM}$	at 25°C with 100 $\mu\text{W}$
Frequency Stability	Over OTR	$\pm 50\text{PPM}$ (Standard)	From $\pm 5\text{PPM}$ (depending on OTR)
Operating Temperature Range	$T_{\text{OPR}}$	-10°C to +60°C	See Table
Storage Temperature Range	$T_{\text{STG}}$	-55°C to +125°C	
Load Capacity	$C_L$	30pF (Std value)	Please specify
Drive-Level	$D_L$	100.0 $\mu\text{W}$ Typ.	0.5mW Max
Shunt Capacitance	$C_0$	7.0pF Typ.	
Dynamic Capacitance	$C_1$	20.0fF Typ.	
Ageing	Fa	$\pm 5.0\text{PPM}$	at 25°C $\pm 3^\circ\text{C}$ 1st Year

#### Additional Specifications

Freq Range	Mode	ESR
300 to 800 kHz	Fundamental	3k $\Omega$
800 to 1300 kHz	Fundamental	5k $\Omega$
1.84 to 2.99 MHz	Fundamental	650 $\Omega$
3.00 to 3.49 MHz	Fundamental	250 $\Omega$
3.50 to 3.99 MHz	Fundamental	150 $\Omega$
4.00 to 4.99 MHz	Fundamental	100 $\Omega$
5.00 to 5.99 MHz	Fundamental	80 $\Omega$
6.00 to 7.99 MHz	Fundamental	50 $\Omega$
8.00 to 12.99 MHz	Fundamental	35 $\Omega$
13.00 to 32.00 MHz	Fundamental	25 $\Omega$
24.00 to 29.99 MHz	3rd Overtone	60 $\Omega$
30.00 to 79.99 MHz	3rd Overtone	40 $\Omega$
80.00 to 125.00 MHz	5th Overtone	90 $\Omega$
120.00 to 200.00 MHz	7th Overtone	150 $\Omega$
20.00 to 40.00 MHz	BT Fundamental	40 $\Omega$

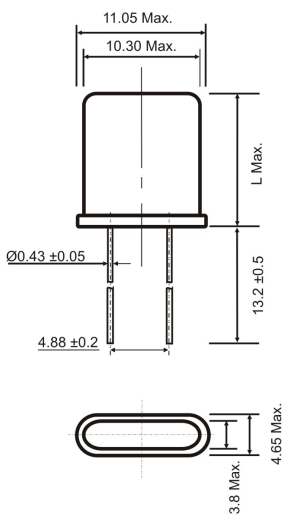
#### Temperature Stability Options

OTR	Temperature Stability (PPM)				
	$\pm 5$	$\pm 10$	$\pm 15$	$\pm 20$	$\pm 30$
0°C to +50°C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-10°C to +60°C		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-20°C to +70°C			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-30°C to +80°C				<input type="checkbox"/>	<input checked="" type="checkbox"/>
-40°C to +85°C					<input type="checkbox"/>

= Available  
 = Recommended

BT - Cut will exhibit parabolic Freq/Temp curve with  $\pm 100\text{PPM}$  -10°C to +60°C

#### Dimensions (mm)



Holder Style	L
HC-49/U	13.2mm
HC-49/T	11.2mm

#### AT-Cut Temperature Characteristics

Typical AT-Cut Frequency/Temperature Curves

