

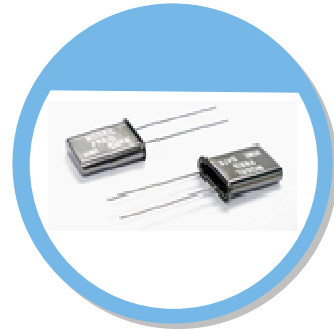
X8(HC-43/U) Type

FEATURE

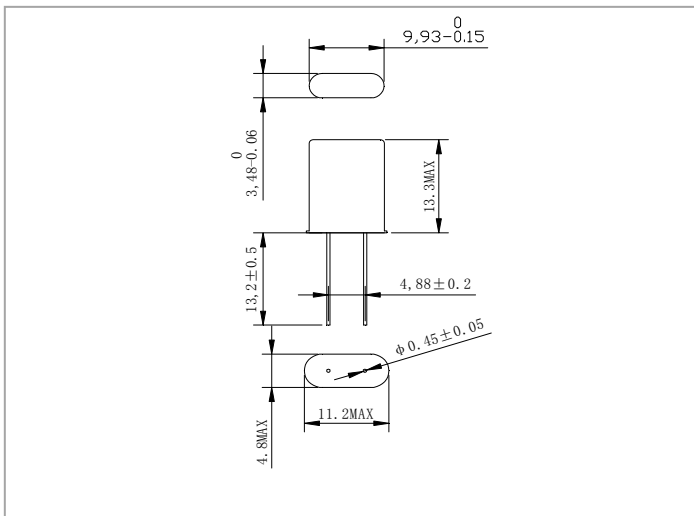
- 10 x 3.0 x 13.0mm HC-43/U Cold Weld
- Gold electrode, vacuum
- Fast warm up
- High stability, low temperature frequency coefficient
- Good aging and reliability

TYPICAL APPLICATION

- Precision OCXO, VCXO and TCXO oscillators



DIMENSION (mm)



EQUIVALENT SERIES RESISTANCE (E.S.R)

Frequency Range	MODE(Cut)	E.S.R.
$4 \text{ MHz} \leq F_o \leq 8 \text{ MHz}$	AT Fundamental	$\leq 20\Omega$
$8 \text{ MHz} < F_o \leq 10 \text{ MHz}$	AT 3 rd OT	$\leq 40\Omega$
$10 \text{ MHz} < F_o \leq 20 \text{ MHz}$	AT 3 rd OT	$\leq 30\Omega$
$20 \text{ MHz} < F_o \leq 50 \text{ MHz}$	AT 3 rd OT	$\leq 20\Omega$
$50 \text{ MHz} < F_o \leq 100 \text{ MHz}$	AT 5 th OT	$\leq 50\Omega$
$10 \text{ MHz} < F_o \leq 20 \text{ MHz}$	SC 3 rd OT	$\leq 105\Omega$
$20 \text{ MHz} < F_o \leq 40 \text{ MHz}$	SC 3 rd OT	$\leq 60\Omega$

ELECTRICAL SPECIFICATION

Parameter	Min.	Typical	Max.	Unit
Operating Temp. Range	-55		+125	°C
Standard Frequency	10, 12.8, 13, 16.384			MHz
Turn Point	+75°C to +105°C (mode, cut, frequency dependent, other turn points)			°C
Frequency Tolerance @ Turn			±5	ppm
Level of Drive		100	500	µW
Shunt Capacitance (C0)			7.0	pF
Insulation Resistance	500MΩ @ DC100V			
Aging	±0.5 to ±1.0			ppm/year

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

STANDARD OPTIONS

Nominal Frequency	MODE(Cut)	R(Ω)	C0(pF)	C1(fF)	Q(Typical)	Aging(ppm/year)
10 MHz	AT 3 rd OT	< 45	< 2.6	$0.44 \pm 20\%$	645k	0.3
12.8 MHz	AT 3 rd OT	< 45	< 2.6	$0.85 \pm 20\%$	460k	0.5
16.384 MHz	AT 3 rd OT	< 30	< 3.8	$1.60 \pm 20\%$	420k	0.5
10 MHz	SC 3 rd OT	< 105	< 2.6	$0.19 \pm 20\%$	1,000k	0.05
12.8 MHz	SC 3 rd OT	< 90	< 2.6	$0.19 \pm 20\%$	890k	0.06
13 MHz	SC 3 rd OT	< 90	< 2.6	$0.19 \pm 20\%$	930k	0.06
16.384 MHz	SC 3 rd OT	< 85	< 3.0	$0.20 \pm 20\%$	700k	0.06