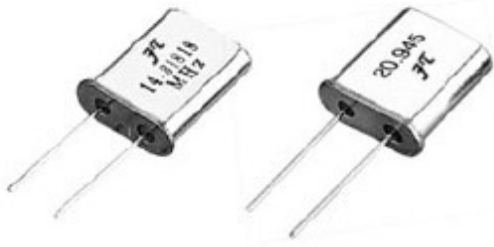
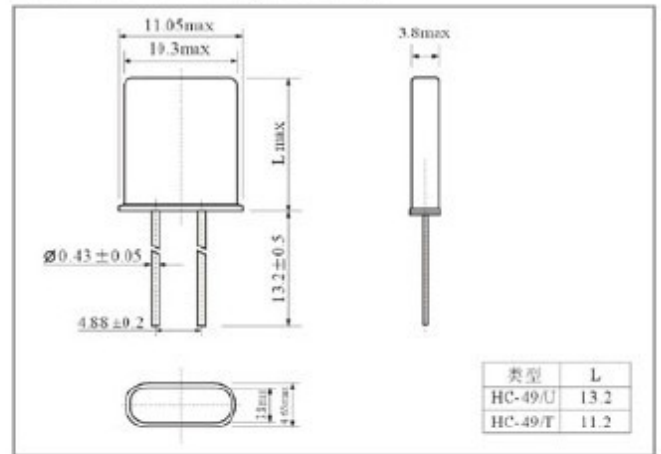


QUARTZ CRYSTAL RESONATOR

HC-49U/HC-49T DIP TYPE



DIMENSIONS (Unit: mm)



PART NUMBER GUIDE

	Quartz Crystal Resonator	Frequency	Load Capacitance	*Package Type
FT	X	14.318MHz	20	U

1. PARAMETERS

PARAMETER		SPECIFICATION
Frequency Range	(MHz)	1.8MHz~100MHz
Operation Mode		See Table 2
Load capacitance C_L	(pF)	20pF Std. 8 to 35pF series available
Frequency Tolerance F_L	(ppm)	$\pm 20\text{ppm}@25^\circ\text{C}$ Std. ($\pm 5\text{ppm}\sim\pm 100\text{ppm}$ available)
Temperature Tolerance T_L	(ppm)	$\pm 20\text{ppm}$ Std. (See Table 3)
Operating Temperature T_o	($^\circ\text{C}$)	-20°C to $+70^\circ\text{C}$ Std. (See Table 3)
Storage Temperature S_T	($^\circ\text{C}$)	-40°C to $+85^\circ\text{C}$
Motional Resistance R_c	(Ω)	See Table 2
Shunt Capacitance C_o	(pF)	7pF max
Drive Level D_L	(mW)	0.01mW~1mW
Insulation Resistance I_k	(M Ω)	500(DC500 \pm 10V) min
Aging@25 $^\circ\text{C}$	(ppm/y)	$\pm 5\text{ppm}$ max

⊙ All specifications subject change without notice.

2. OPERATION MODE AND RS

FREQUENCY	TYPE	MODE	HC-49T (Ω_{max})	HC-49U (Ω_{max})
1.8MHz~2.0MHz		FUND		600
2.0MHz~2.4MHz		FUND		450
2.4MHz~3.0MHz		FUND		350
3.0MHz~3.5MHz		FUND		150
3.5MHz~4.0MHz		FUND	150	90
4.0MHz~7.0MHz		FUND	90	70
7.0MHz~10MHz		FUND	50	50
10MHz~15MHz		FUND	45	35
15MHz~20MHz		FUND	25	25
20MHz~25MHz		FUND/3 rd OVERTONE	25/60	25/50
25MHz~30MHz		FUND/3 rd OVERTONE	25/40	25/40
30MHz~75MHz		3 rd OVERTONE	40	40
75MHz~100MHz		3 rd / 5 th OVERTONE	50/60	50/60
20MHz~40MHz		BT FUND	40	40

3. FREQUENCY-TEMPERATURE TOLERANCE

• Recommended

Cutting 切型	Temp. Range	Tolerance(ppm)					
		± 5	± 10	± 15	± 20	± 30	± 50
AT	$0^\circ\text{C}\sim+50^\circ\text{C}$	○	○	○	○	○	○
	$-10^\circ\text{C}\sim+60^\circ\text{C}$		○	○	●	○	○
	$-20^\circ\text{C}\sim+70^\circ\text{C}$			○	○	●	○
	$-30^\circ\text{C}\sim+80^\circ\text{C}$				○	○	
	$-40^\circ\text{C}\sim+85^\circ\text{C}$						○
BT	Within a range of $\pm 80\sim\pm 120\text{ppm}$ BT : $\pm 80\sim\pm 120\text{ppm}$						