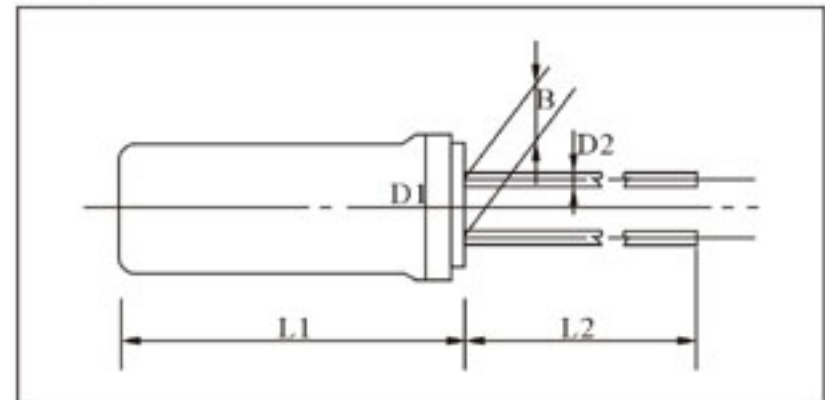


## QUARTZ CRYSTAL RESONATOR

## 石英晶体谐振器

## AT38/AT39/AT310 DIP TYPE

## DIMENSIONS (Unit: mm) 外形尺寸



外型	L1	L2	D1	D2	B
AT38 (ø3x8)	8.3	10.0	ø3.1	ø0.3	0.8
AT39 (ø3x9)	9.3	10.0	ø3.1	ø0.3	1.1
AT310 (ø3x10)	10.3	10.0	ø3.1	ø0.3	1.1

## PART NUMBER GUIDE 部件号示例 e.g. FTX20.945M20A8 (\*A8=AT38 A9=AT39 A10=AT310)

	Quartz Crystal Resonator 石英晶体谐振器	Frequency 频率	Load Capacitance 负载电容	*Package Type 盒形
FT	X	20.945MHz	20	A8

## 1. PARAMETERS 技术参数

PARAMETER	参数	SPECIFICATION 规格
Frequency Range	频率范围 (MHz)	3.579MHz ~ 60MHz
Operation Mode	振动模式	See Table 2 见表2
Load Capacitance $C_L$	负载电容 (pF)	20pF std. 8 to 35pF series available
Frequency Tolerance $F_L$	调整频差 (ppm)	±10ppm ~ ±50ppm
Temperature Tolerance $T_L$	温度频差 (ppm)	±50ppm Std.
Operating Temperature $O_T$	工作温度 (°C)	-10°C to +60°C Std. (See P4 Table 3 见第四页表3)
Storage Temperature $S_T$	储存温度 (°C)	-40°C ~ +85°C
Motional Resistance $R_2$	谐振电阻 (Ω)	See Table 2 见表2
Shunt Capacitance $C_0$	静态电容 (pF)	7pF max
Drive Level $D_L$	激励电平 (mW)	0.01mW ~ 1mW
Insulation Resistance $I_2$	绝缘电阻 (MΩ)	500(DC 50 ± 10V)min
Aging@25°C	年老化率 (ppm/y)	±5ppm max

All specifications subject change without notice. 规格变化, 如不另行通知

## 2. OPERATION MODE AND RS 振动模式与谐振电阻

FREQUENCY	TYPE	MODE	RS (Ωmax)
3.579MHz~3.699MHz		FUND	200
3.700MHz~3.999MHz		FUND	180
4.000MHz~4.099MHz		FUND	150
4.100MHz~4.999MHz		FUND	120
5.000MHz~5.999MHz		FUND	100
7.000MHz~9.999MHz		FUND	80
10.000MHz~11.999MHz		FUND	70
12.000MHz~13.999MHz		FUND	60
14.000MHz~15.999MHz		FUND	50
16.000MHz~30.000MHz		FUND	40
27.000MHz~60.000MHz		3 <sup>rd</sup> OVERTONE	100

 AT CUTTING  
TEMPERATURE  
CHARACTERISTICS  
AT 切频率温度特性图
