

■特点Features

标准的 11.3 x 4.4 x H mm封装形式
小公差及高稳定性同时具备低成本
包装：每塑料袋200只，每盒包装2000PCS
Typical 11.3 x 4.4 x H mm standard package
Tight tolerance and Stability and low cost
Packing: each bag of 200pcs,each box of 2000 pcs



■标准规格Electronic Specification

型号 Type	HC-49S
频率范围 Frequency Range	3.0 ~ 70MHz (具体见表1)
调整频差 Frequency Tolerance(at25°C)	± 3ppm, ± 5ppm, ± 10ppm, ± 20ppm, ± 30ppm
温度频差 Frequency Stability	具体见表2
工作温度 Operating Temperature Range	-40°C ~ 85°C
贮存温度 Storage Temperature Range	-55°C ~ 125°C
负载电容 Load Capacitance	Custom design(8 ~ ∞pF)
激励电平 Drive Level	100 μ W Typical (1mW max.)
静态电容 Shunt Capacitance	7pF max.
老化率 Aging	ΔF/F: ± 5PPM/year(max.)

特殊技术要求可定制

■等效电阻 Equivalent Series Resistance(E.S.R.)

频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.	频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.
3.0 ~ 3.499MHz	49S	AT,Fund	120 Ω Max.	10 ~ 15.999MHz	49S	AT,Fund	40 Ω Max.
3.5 ~ 3.999MHz	49S	AT,Fund	100 Ω Max.	16.0 ~ 48.000MHz	49S	AT,Fund	25 Ω Max.
4.0 ~ 4.999MHz	49S	AT,Fund	80 Ω Max.	36.0 ~ 48.000MHz	49S	BT,Fund	40 Ω Max.
5.0 ~ 5.999MHz	49S	AT,Fund	60 Ω Max.	30.0 ~ 47.999MHz	49S	AT,3rd	80 Ω Max.
6.0 ~ 9.999MHz	49S	AT,Fund	50 Ω Max.	48.0 ~ 70.000MHz	49S	AT,3rd	60 Ω Max.

Table 1

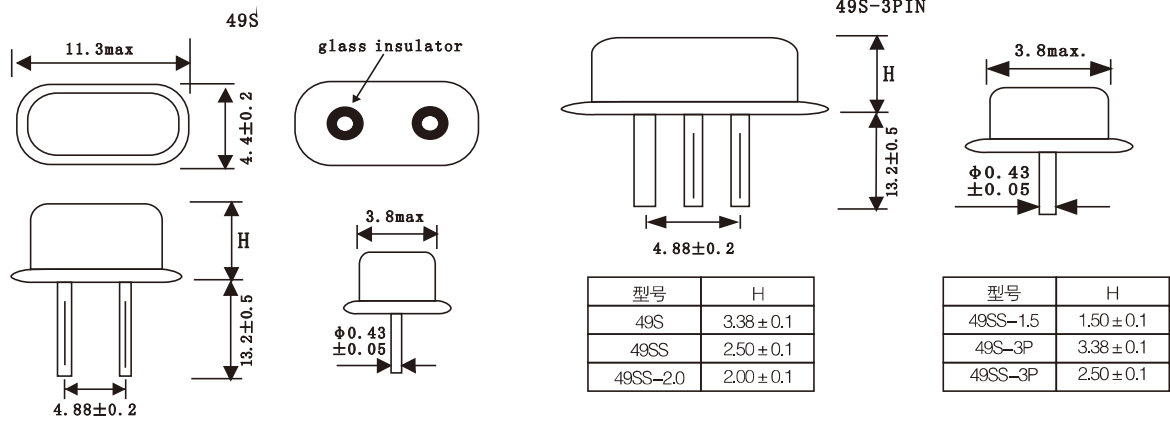
■温度频差和工作温度范围 Frequency Stability Vs Operating Temperature range

Temp.(°C)\ppm	± 3	± 5	± 10	± 20	± 25	± 30	± 50
-10 to 60°C	△	○	○	○	○	○	○
-20 to 70°C		△	○	○	○	○	○
-40 to 85°C			△	○	○	○	○
-40 to 125°C						△	○

○:可实现的 △:与供应商沟通

Table 2

■外型尺寸 Outline Dimensions(Unit:mm)

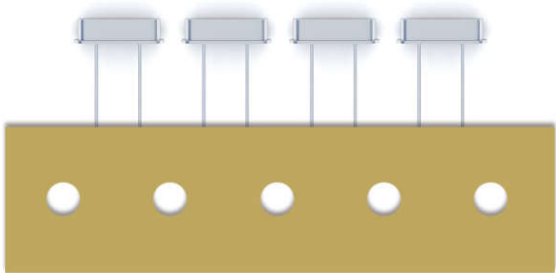


HC-49S(纸编带)

石英晶体谐振器(XTAL) Quartz Crystal

特点 Features

标准的 11.3 x 4.4 x H mm封装形式
小公差及高稳定性同时具备低成本
包装：纸编带，每卷1000PCS
Typical 11.3 x 4.4 x H mm standard package
Tight tolerance and Stability and low cost
Packing: tape&reel, 1000pcs per reel



标准规格 Electronic Specification

型号 Type	HC-49S
频率范围 Frequency Range	3.0 ~ 70MHz (具体见表 1)
调整频差 Frequency Tolerance(at25°C)	± 3ppm, ± 5ppm, ± 10ppm, ± 20ppm, ± 30ppm
温度频差 Frequency Stability	具体见表2
工作温度 Operating Temperature Range	-40°C ~ 85°C
贮存温度 Storage Temperature Range	-55°C ~ 125°C
负载电容 Load Capacitance	Custom design(8 ~ ∞pF)
激励电平 Drive Level	100 μ W Typical (1mW max.)
静态电容 Shunt Capacitance	7pF max.
老化率 Aging	ΔF/F: ± 5PPM/year(max.)

特殊技术要求可定制

等效电阻 Equivalent Series Resistance(E.S.R.)

频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.	频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.
3.0 ~ 3.499MHz	49S	AT,Fund	120 Ω Max.	10 ~ 15.999MHz	49S	AT,Fund	40 Ω Max.
3.5 ~ 3.999MHz	49S	AT,Fund	100 Ω Max.	16.0 ~ 48.000MHz	49S	AT,Fund	25 Ω Max.
4.0 ~ 4.999MHz	49S	AT,Fund	80 Ω Max.	36.0 ~ 48.000MHz	49S	BT,Fund	40 Ω Max.
5.0 ~ 5.999MHz	49S	AT,Fund	60 Ω Max.	30.0 ~ 47.999MHz	49S	AT,3rd	80 Ω Max.
6.0 ~ 9.999MHz	49S	AT,Fund	50 Ω Max.	48.0 ~ 70.000MHz	49S	AT,3rd	60 Ω Max.

Table 1

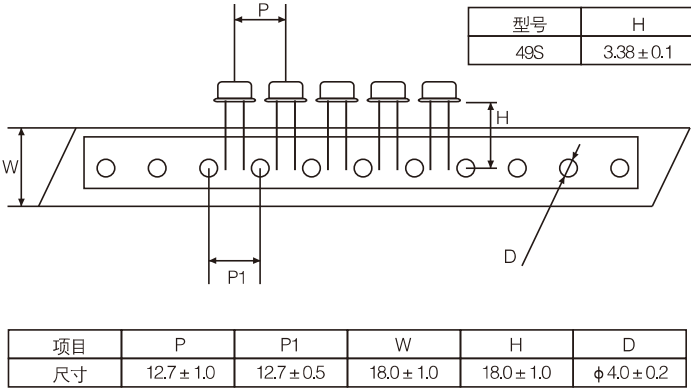
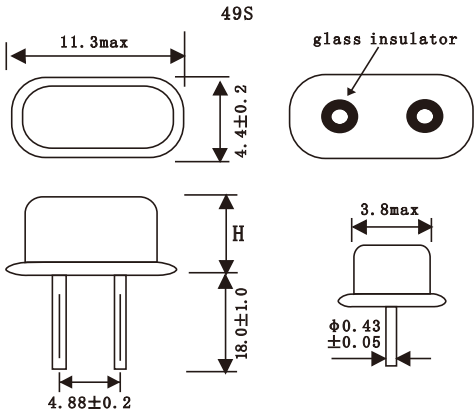
温度频差和工作温度范围 Frequency Stability Vs Operating Temperature range

Temp.(°C)\ppm	± 3	± 5	± 10	± 20	± 25	± 30	± 50
-10 to 60°C	Δ	○	○	○	○	○	○
-20 to 70°C		Δ	○	○	○	○	○
-40 to 85°C			Δ	○	○	○	○
-40 to 125°C						Δ	○

○:可实现的 Δ:与供应商沟通

Table 2

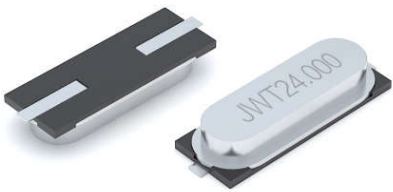
外型尺寸 Outline Dimensions(Unit:mm)



■特点 Features

标准的 12.6 x 4.8 x H mm 金属帽盖表面贴装封装形式
小公差及高稳定性同时具备低成本
适应自动装配的24MM宽度的编带包装
包装：每卷1000-2000PCS

Typical 12.6 x 4.8 x H mm metal cover SMD package
Tight tolerance and Stability and low cost
24mm width Tape & Reel package for automatic assembly
Packing: Tape & Reel, Standard 1000-2000 pcs per Reel



■标准规格 Electronic Specification

型号 Type	HC-49S/SMD
频率范围 Frequency Range	3.0 ~ 70MHz (具体见表1)
调整频差 Frequency Tolerance(at25°C)	± 3ppm, ± 5ppm, ± 10ppm, ± 20ppm, ± 30ppm
温度频差 Frequency Stability	具体见表2
工作温度 Operating Temperature Range	-40°C ~ 85°C
贮存温度 Storage Temperature Range	-55°C ~ 125°C
负载电容 Load Capacitance	Custom design(8 ~ ∞ pF)
激励电平 Drive Level	100 μ W Typical (1mW max.)
静态电容 Shunt Capacitance	7pF max.
老化率 Aging	ΔF/F: ± 5PPM/year(max.)

特殊技术要求可定制

■等效电阻 Equivalent Series Resistance(E.S.R.)

频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.	频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.
3.0 ~ 3.499MHz	49S	AT,Fund	120 Ω Max.	10 ~ 15.999MHz	49S	AT,Fund	40 Ω Max.
3.5 ~ 3.999MHz	49S	AT,Fund	100 Ω Max.	16.0 ~ 48.000MHz	49S	AT,Fund	25 Ω Max.
4.0 ~ 4.999MHz	49S	AT,Fund	80 Ω Max.	24.0 ~ 48.000MHz	49S	BT,Fund	40 Ω Max.
5.0 ~ 5.999MHz	49S	AT,Fund	60 Ω Max.	30.0 ~ 47.999MHz	49S	AT,3rd	80 Ω Max.
6.0 ~ 9.999MHz	49S	AT,Fund	50 Ω Max.	48.0 ~ 70.000MHz	49S	AT,3rd	60 Ω Max.

Table 1

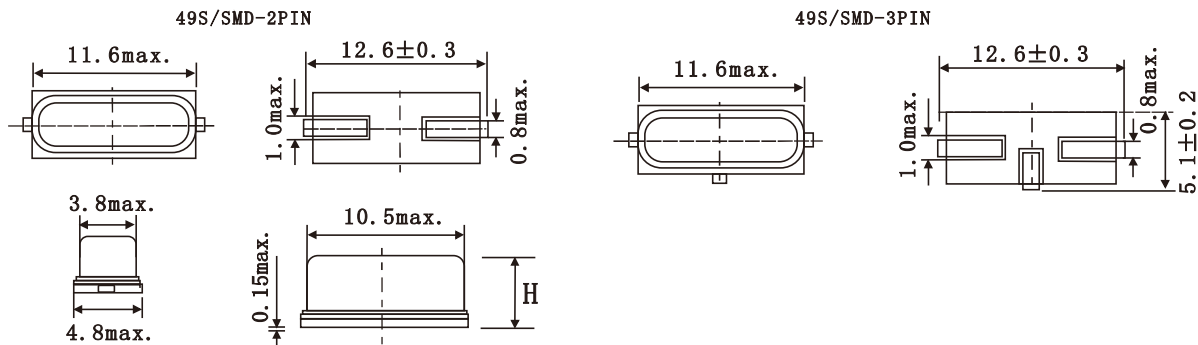
■温度频差和工作温度范围 Frequency Stability Vs Operating Temperature range

Temp.(°C)\ppm	± 3	± 5	± 10	± 20	± 25	± 30	± 50
-10 to 60°C	△	○	○	○	○	○	○
-20 to 70°C		△	○	○	○	○	○
-40 to 85°C			△	○	○	○	○
-40 to 125°C						△	○

○:可实现的 △:与供应商沟通

Table 2

■外型尺寸 Outline Dimensions(Unit:mm)

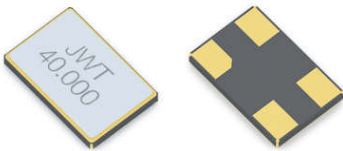


型号	H	型号	H	型号	H	型号	H
49S/SMD	4.0	49SS/SMD-2.5	2.5	49S/SMD-3P	4.0	49SS/SMD-2.5-3P	2.5

■特点 Features

标准的 1.6 x 1.2 x 0.35mm 陶瓷封装表面贴装形式
小公差及高稳定性
适应自动装配的8MM宽度的编带包装
包装：每卷1000/2000/3000PCS

Typical 1.6 x 1.2 x 0.35 mm Ceramic SMD package
Tight tolerance and Stabilit
8mm width Tape&Reel package for automatic assembly
Packing: Tape & Reel, 1000/2000/3000 pcs per Reel



■标准规格 Electronic Specification

型号	Type	SMD1612
频率范围	Frequency Range	24,000 ~ 54,000MHz
振荡模式	Oscillator Mode	Fundamental(AT cut) 基频(AT切)
调整频差	Frequency Tolerance(at25°C)	± 10ppm, ± 20ppm, ± 30ppm
温度频差	Frequency Stability	具体见表2
工作温度	Operating Temperature Range	-40°C ~ 85°C
贮存温度	Storage Temperature Range	-55°C ~ 125°C
负载电容	Load Capacitance	Custom design(8 ~ ∞pF)
激励电平	Drive Level	50 μ W Typical (200 μ W max.)
静态电容	Shunt Capacitance	5pF max.
老化率	Aging	ΔF/F: ± 3PPM/year(max.)

特殊技术要求可定制

■等效电阻 Equivalent Series Resistance(E.S.R.)

频率范围	盒型	振动模式	等效电阻	频率范围	盒型	振动模式	等效电阻
Frequency Range	Hold Type	Mode	E.S.R.	Frequency Range	Hold Type	Mode	E.S.R.
24,000 ~ 30,000MHz	SMD	AT,Fund	100Ω Max	30,000 ~ 54,000MHz	SMD	AT,Fund	80Ω Max.

Table 1

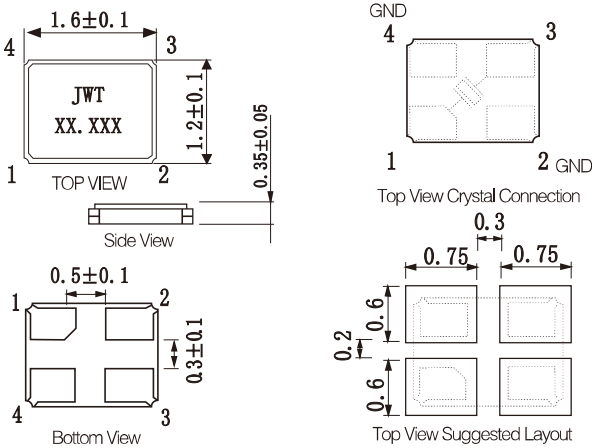
■温度频差和工作温度范围 Frequency Stability Vs Operating Temperature range

Temp.(°C)\ppm	± 5	± 10	± 15	± 20	± 25	± 30	± 50
-10 to 60°C	△	○	○	○	○	○	○
-20 to 70°C		△	○	○	○	○	○
-40 to 85°C			△	○	○	○	○
-40 to 125°C						△	○

○:可实现的 △:与供应商沟通

Table 2

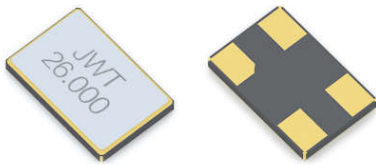
■外型尺寸 Outline Dimensions(Unit:mm)



特点Features

标准的 2.0 x 1.6 x 0.50mm 陶瓷封装表面贴装形式
小公差及高稳定性
适应自动装配的8MM宽度的编带包装
包装：每卷1000/2000/3000PCS

Typical 2.0 x 1.6 x 0.50 mm Ceramic SMD package
Tight tolerance and Stability
8mm width Tape&Reel package for automatic assembly
Packing: Tape & Reel, 1000/2000/3000 pcs per Reel



标准规格 Electronic Specification

型号	Type	SMD2016
频率范围	Frequency Range	16,000 ~ 96,000MHz
振荡模式	Oscillator Mode	Fundamental(AT cut) 基频(AT切)
调整频差	Frequency Tolerance(at25°C)	± 10ppm, ± 20ppm, ± 30ppm
温度频差	Frequency Stability	具体见表2
工作温度	Operating Temperature Range	-40°C ~ 125°C
贮存温度	Storage Temperature Range	-55°C ~ 125°C
负载电容	Load Capacitance	Custom design(8 ~ ∞pF)
激励电平	Drive Level	50 μW Typical (200 μW max.)
静态电容	Shunt Capacitance	5pF max.
老化率	Aging	ΔF/F: ± 3PPM/year(max.)

特殊技术要求可定制

等效电阻 Equivalent Series Resistance(E.S.R.)

频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.	频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.
16,000 ~ 19,999MHz	SMD	AT,Fund	150Ω Max	30,000 ~ 54,000MHz	SMD	AT,Fund	80Ω Max.
20,000 ~ 29,999MHz	SMD	AT,Fund	100Ω Max	54,000 ~ 96,000MHz	SMD	AT,Fund	60Ω Max.

Table 1

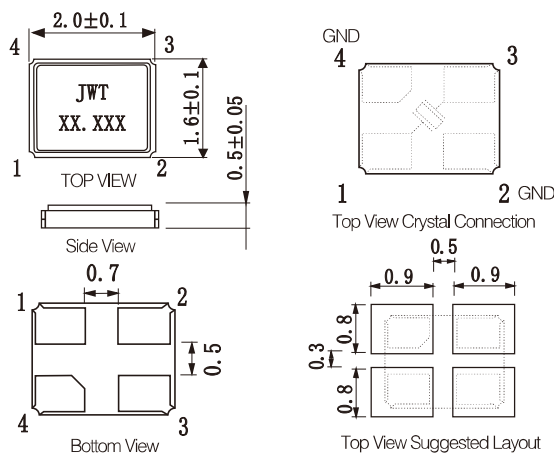
温度频差和工作温度范围 Frequency Stability Vs Operating Temperature range

Temp.(°C)\ppm	± 5	± 10	± 15	± 20	± 25	± 30	± 50
-10 to 60°C	△	○	○	○	○	○	○
-20 to 70°C		△	○	○	○	○	○
-40 to 85°C			△	○	○	○	○
-40 to 125°C						△	○

○:可实现的 △:与供应商沟通

Table 2

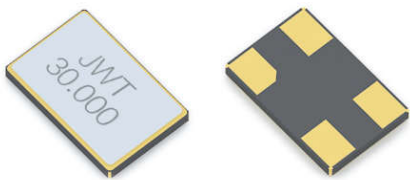
外型尺寸 Outline Dimensions(Unit:mm)



特点Features

标准的 2.5 x 2.0 x 0.55 mm 陶瓷封装表面贴装形式
小公差及高稳定性
适应自动装配的8MM宽度的编带包装
包装：每卷1000/2000/3000PCS

Typical 2.5 x 2.0 x 0.55 mm Ceramic SMD package
Tight tolerance and Stability
8mm width Tape&Reel package for automatic assembly
Packing: Tape & Reel, 1000/2000/3000 pcs per Reel



标准规格Electronic Specification

型号	Type	SMD2520
频率范围	Frequency Range	12,000 ~ 54,000MHz
振荡模式	Oscillator Mode	Fundamental(AT cut) 基频(AT切)
调整频差	Frequency Tolerance(at25°C)	± 10ppm, ± 20ppm, ± 30ppm
温度频差	Frequency Stability	具体见表2
工作温度	Operating Temperature Range	-40°C ~ 125°C
贮存温度	Storage Temperature Range	-55°C ~ 125°C
负载电容	Load Capacitance	Custom design(8 ~ ∞pF)
激励电平	Drive Level	100 μ W Typical (300 μ W max.)
静态电容	Shunt Capacitance	5pF max.
老化率	Aging	ΔF/F: ± 3PPM/year(max.)

特殊技术要求可定制

等效电阻 Equivalent Series Resistance(E.S.R.)

频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.	频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.
12,000 ~ 15,999MHz	SMD	AT,Fund	150 Ω Max.	19,000 ~ 29,999MHz	SMD	AT,Fund	80 Ω Max.
16,000 ~ 18,999MHz	SMD	AT,Fund	100 Ω Max.	30,000 ~ 54,000MHz	SMD	AT,Fund	60 Ω Max.

Table 1

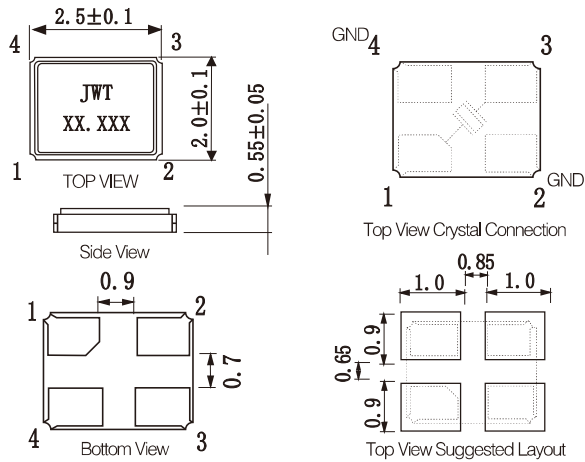
温度频差和工作温度范围 Frequency Stability Vs Operating Temperature range

Temp.(°C)\ppm	± 5	± 10	± 15	± 20	± 25	± 30	± 50
-10 to 60°C	△	○	○	○	○	○	○
-20 to 70°C		△	○	○	○	○	○
-40 to 85°C			△	○	○	○	○
-40 to 125°C						△	○

○:可实现的 △:与供应商沟通

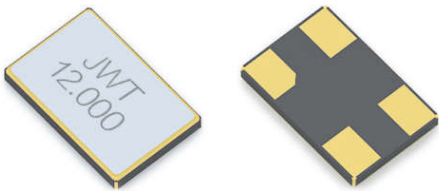
Table 2

外型尺寸 Outline Dimensions(Unit:mm)



特点Features

标准的 3.2 x 2.5 x 0.7 mm 陶瓷封装表面贴装形式
小公差及高稳定性
适应自动装配的8MM宽度的编带包装
包装：每卷1000/2000/3000PCS
Typical 3.2 x 2.5 x 0.8 mm Ceramic SMD package
Tight tolerance and Stability
8mm width Tape&Reel package for automatic assembly
Packing: Tape & Reel, 1000/2000/3000 pcs per Reel



标准规格 Electronic Specification

型号 Type	SMD3225
频率范围 Frequency Range	8.000 ~ 54.000MHz
振荡模式 Oscillator Mode	Fundamental(AT cut) 基频(AT切)
调整频差 Frequency Tolerance(at25°C)	± 10ppm, ± 20ppm, ± 30ppm
温度频差 Frequency Stability	具体见表2
工作温度 Operating Temperature Range	-40°C ~ 125°C
贮存温度 Storage Temperature Range	-55°C ~ 125°C
负载电容 Load Capacitance	Custom design(8 ~ ∞pF)
激励电平 Drive Level	100 μ W Typical (300 μ W max.)
静态电容 Shunt Capacitance	5pF max.
老化率 Aging	ΔF/F: ± 3PPM/year(max.)

特殊技术要求可定制

等效电阻 Equivalent Series Resistance(E.S.R.)

频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.	频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.
8.000 ~ 9.839MHz	SMD	AT,Fund	500 Ω Max.	16.000 ~ 18.999MHz	SMD	AT,Fund	60 Ω Max.
9.840 ~ 11.999MHz	SMD	AT,Fund	300 Ω Max.	19.000 ~ 29.999MHz	SMD	AT,Fund	40 Ω Max.
12.000 ~ 15.999MHz	SMD	AT,Fund	80 Ω Max.	30.000 ~ 54.000MHz	SMD	AT,Fund	30 Ω Max.

Table 1

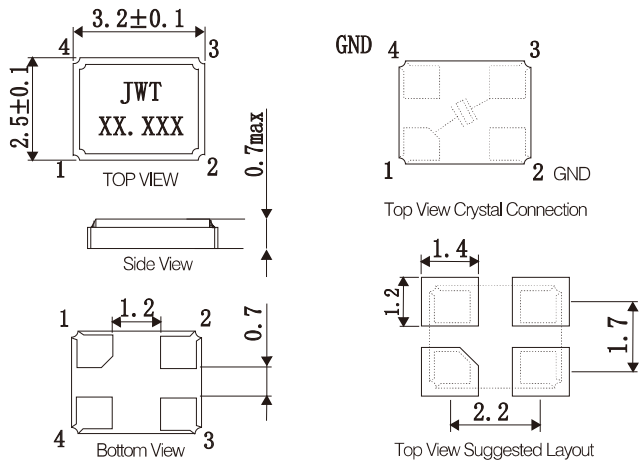
温度频差和工作温度范围 Frequency Stability Vs Operating Temperature range

Temp.(°C)\ppm	± 5	± 10	± 15	± 20	± 25	± 30	± 50
-10 to 60°C	△	○	○	○	○	○	○
-20 to 70°C	△	○	○	○	○	○	○
-40 to 85°C			△	○	○	○	○
-40 to 125°C						△	○

○:可实现的 △:与供应商沟通

Table 2

外型尺寸 Outline Dimensions(Unit:mm)



特点 Features

标准的 5.0 x 3.2 x 1.0 mm 陶瓷封装表面贴装形式

小公差及高稳定性

适应自动装配的12MM宽度的编带包装

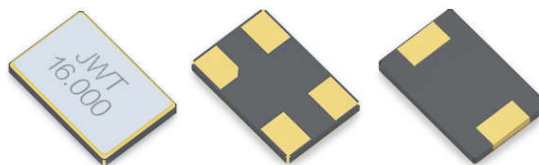
包装：每卷1000PCS

Typical 5.0 x 3.2 x 1.0 mm Ceramic SMD package

Tight tolerance and Stability

12mm width Tape & Reel package for automatic assembly

Packing: Tape & Reel, 1000 pcs per Reel



标准规格 Electronic Specification

型号 Type	SMD5032	
频率范围 Frequency Range	8,000 ~ 54,000MHz	40,000 ~ 100,000MHz
振荡模式 Oscillator Mode	Fund(AT cut)	3rd overtone (AT cut)
调整频差 Frequency Tolerance(at25°C)	± 10ppm, ± 20ppm, ± 30ppm	
温度频差 Frequency Stability	具体见表2	
工作温度 Operating Temperature Range	-40°C ~ 125°C	
贮存温度 Storage Temperature Range	-55°C ~ 125°C	
负载电容 Load Capacitance	Custom design(8 ~ ∞pF)	
激励电平 Drive Level	100 μW Typical (300 μW max.)	
静态电容 Shunt Capacitance	5pF max.	
老化率 Aging	ΔF/F: ± 3PPM/year(max.)	

特殊技术要求可定制

等效电阻 Equivalent Series Resistance(E.S.R.)

频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.	频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.
8,000 ~ 10,999MHz	SMD	AT,Fund	80 Ω Max.	25,000 ~ 54,000MHz	SMD	AT,Fund	30 Ω Max.
11,000 ~ 11,999MHz	SMD	AT,Fund	60 Ω Max.	40,000 ~ 59,999MHz	SMD	AT,3rd	120 Ω Max.
12,000 ~ 24,999MHz	SMD	AT,Fund	40 Ω Max.	60,000 ~ 100,000MHz	SMD	AT,3rd	80 Ω Max.

Table 1

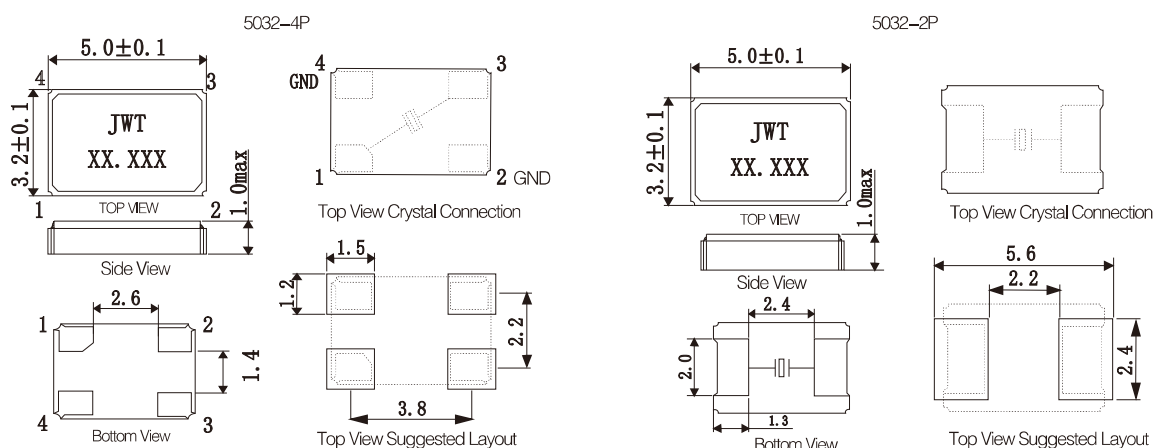
温度频差和工作温度范围 Frequency Stability Vs Operating Temperature range

Temp.(°C)\ppm	± 5	± 10	± 15	± 20	± 25	± 30	± 50
-10 to 60°C	△	○	○	○	○	○	○
-20 to 70°C		△	○	○	○	○	○
-40 to 85°C			△	○	○	○	○
-40 to 125°C						△	○

○:可实现的 △:与供应商沟通

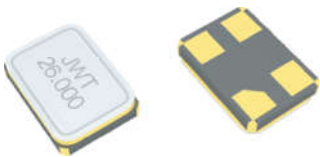
Table 2

外型尺寸 Outline Dimensions(Unit:mm)



特点 Features

采用激光焊接工艺
标准的 3.2 x 2.5mm陶瓷封装表面贴装形式，低成本
小公差及高稳定性
适应自动装配的8MM宽度的编带包装
包装：每卷1000/2000/3000/15000PCS
Laser welding
Typical 3.2 x 2.5mm Ceramic SMD package，and low cost
Tight tolerance and Stability
8mm width Tape&Reel package for automatic assembly
Packing: Tape & Reel，1000/2000/3000/15000 pcs per Reel



标准规格 Electronic Specification

型号 Type	SMD3225
频率范围 Frequency Range	8,000 ~ 54,000MHz
振荡模式 Oscillator Mode	Fundamental(AT cut) 基频(AT切)
调整频差 Frequency Tolerance(at25°C)	± 10ppm, ± 20ppm, ± 30ppm
温度频差 Frequency Stability	具体见表2
工作温度 Operating Temperature Range	-40°C ~ 125°C
贮存温度 Storage Temperature Range	-55°C ~ 125°C
负载电容 Load Capacitance	Custom design(8 ~ ∞pF)
激励电平 Drive Level	100 μ W Typical (300 μ W max.)
静态电容 Shunt Capacitance	5pF max.
老化率 Aging	ΔF/F: ± 3PPM/year(max.)

特殊技术要求可定制

等效电阻 Equivalent Series Resistance(E.S.R.)

频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.	频率范围 Frequency Range	盒型 Hold Type	振动模式 Mode	等效电阻 E.S.R.
8,000 ~ 9,839MHz	SMD	AT,Fund	500 Ω Max.	16,000 ~ 18,999MHz	SMD	AT,Fund	60 Ω Max.
9,840 ~ 11,999MHz	SMD	AT,Fund	300 Ω Max.	19,000 ~ 29,999MHz	SMD	AT,Fund	40 Ω Max.
12,000 ~ 15,999MHz	SMD	AT,Fund	80 Ω Max.	30,000 ~ 54,000MHz	SMD	AT,Fund	30 Ω Max.

Table 1

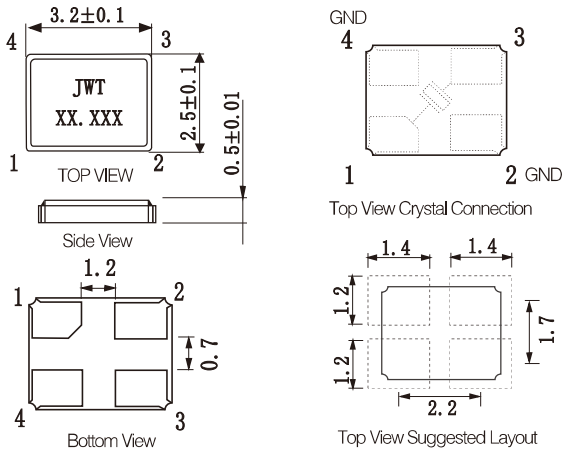
温度频差和工作温度范围 Frequency Stability Vs Operating Temperature range

Temp.(°C)\ppm	± 5	± 10	± 15	± 20	± 25	± 30	± 50
-10 to 60°C	△	○	○	○	○	○	○
-20 to 70°C	△	○	○	○	○	○	○
-40 to 85°C			△	○	○	○	○
-40 to 125°C						△	○

○:可实现的 △:与供应商沟通

Table 2

外型尺寸 Outline Dimensions(Unit:mm)



■特点Features

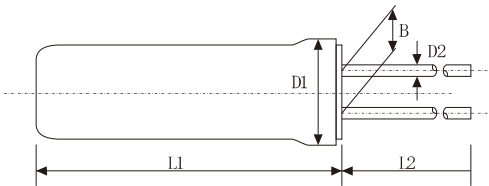
标准的D × L × H mm封装形式
小公差及高稳定性同时具备低成本
包装：每塑料袋1000PCS，每盒包装10000PCS
Typical D × L × H mm standard package
Tight tolerance and Stability and low cost
Packing：each bag of 1000 pcs,each box of 10000 pcs



■标准规格Electronic Specification

型号 Type	圆柱形 时钟晶体
额定频率 Rated frequency	32.768kHz
调整频差 Frequency Tolerance(at25℃)	± 10ppm, ± 20ppm, ± 50ppm
工作温度 Operating Temperature Range	− 20℃~+70℃
贮存温度 Storage Temperature Range	− 55℃~+155℃
拐点温度 Inflection point temperature	+25℃ ± 5℃
负载电容 Load Capacitance	6.5pF, 7pF, 9pF, 12.5pF
激励电平 Drive Level	1.0 μ W Max.
频率温度系数 Frequency temperature coefficient	−0.04 × 10 ⁻⁶ /℃Max
串联电阻 Equivalent Series Resistance	"50 or 60 kΩ Max.(30 kΩ Typ.)"
串联电容 Equivalent Series Capacitance	2.0fF Typ.
静态电容 Shunt Capacitance	0.85pF Typ.
老化率 Aging	± 3 × 10 ⁻⁶ /year Max. (第一年)

■外型尺寸Outline Dimensions(Unit:mm)



型号	L1	L2	D1	D2	B
JU206	6.0 ± 0.2	10.0 ± 0.5	φ 2.1 ± 0.08	φ 0.2 ± 0.05	0.7 ± 0.2
JU308	8.0 ± 0.2	10.0 ± 0.5	φ 3.1 ± 0.08	φ 0.3 ± 0.05	1.1 ± 0.2

该产品在过回流焊时最高温度 < 245℃，并且过回流焊次数 < 2次。

SMD 2.0*1.2

石英晶体谐振器 (XTAL) Crystal kHz Range

特点 Features

标准的2.0×1.2×0.6mm陶瓷封装表面贴装形式

小公差及高稳定性

适应自动装配的12.1mm宽度的编带包装

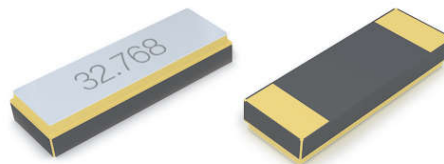
包装：每卷3000PCS

Typical 2.0×1.2×0.6 mm ceramic SMD package

Tight tolerance and Stability

12.1mm width Tape & Reel package for automatic assembly

Packing：Tape & Reel, 3000 pcs per Reel

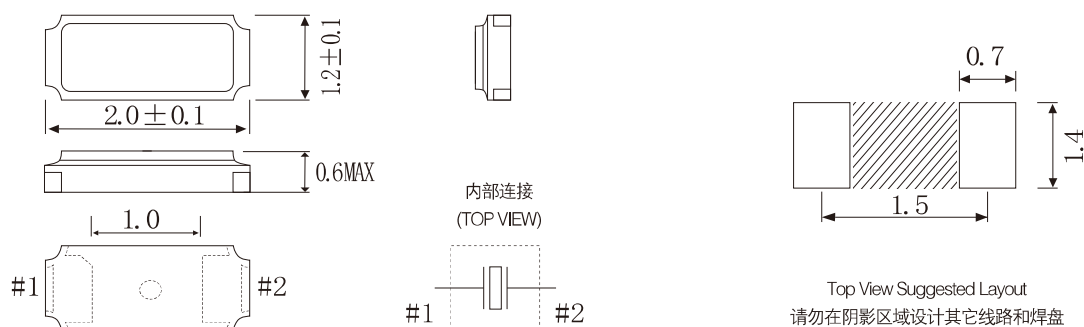


※ 产品表面印字依生产批号决定

标准规格 Electronic Specification

型号 Type	SMD 3.2*1.5
额定频率 Rated frequency	32.768kHz
调整频差 Frequency Tolerance(at25℃)	± 20ppm (Type)
工作温度 Operating Temperature Range	− 40℃~+85℃
贮存温度 Storage Temperature Range	− 55℃~+125℃
拐点温度 Inflection point temperature	+25℃ ± 5℃
负载电容 Load Capacitance	7pF, 9pF, 12.5pF
激励电平 Drivel Level	0.5 μ W (1.0 μ W Max.)
频率温度系数 Frequency temperature coefficient	−0.04 × 10 ^{−6} /℃ ² Max
串联电阻 Equivalent Series Resistance	70kΩ Max.
串联电容 Equivalent Series Capacitance	3.4fF Typ.
静态电容 Shunt Capacitance	1.0pF Typ.
年老化率 Aging	± 3 × 10 ^{−6} /year Max. (第一年)

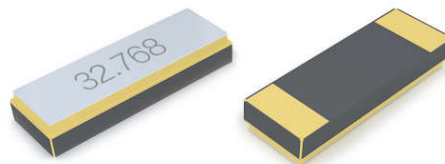
外型尺寸 Outline Dimensions(Unit:mm)



石英晶体谐振器 (XTAL)
Crystal kHz Range

标准的3.2×1.5×0.8mm陶瓷封装表面贴装形式
小公差及高稳定性
适应自动装配的12.1mm宽度的编带包装
包装：每卷3000PCS

Typical 3.2 × 1.5 × 0.8 mm ceramic SMD package
Tight tolerance and Stability
12.1mm width Tape & Reel package for automatic assembly
Packing: Tape & Reel, 3000 pcs per Reel

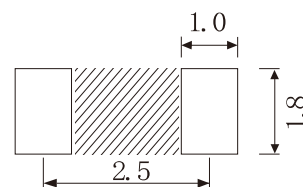


■标准规格 Electronic Specification

型号	Type	SMD 3.2*1.5
额定频率	Rated frequency	32.768kHz
调整频差	Frequency Tolerance(at25℃)	± 20ppm (Type)
工作温度	Operating Temperature Range	－ 40℃~+85℃
贮存温度	Storage Temperature Range	－ 55℃~+125℃
拐点温度	Inflection point temperature	+25℃ ± 5℃
负载电容	Load Capacitance	7pF, 9pF, 12.5pF
激励电平	Dtivel Level	0.5 μ W (1.0 μ W Max.)
频率温度系数	Frequency temperature coefficient	－0.04 × 10 ⁻⁶ /℃ ² Max
串联电阻	Equivalent Series Resistance	70k Ω Max.
串联电容	Equivalent Series Capacitance	3.4fF Typ.
静态电容	Shunt Capacitance	1.0pF Typ.
年老化率	Aging	± 3 × 10 ⁻⁶ /year Max. (第一年)

Technical drawing of a rectangular plate with dimensions and labels:

- Top view: Dimensions are 3.2 ± 0.1 (width) and 1.5 ± 0.1 (height).
- Side view: Dimensions are 0.8 ± 0.1 (height) and 1.7 (width).
- Bottom view: Dimensions are 0.75 (width) and 1.7 (height). Labels #1 and #2 are present.



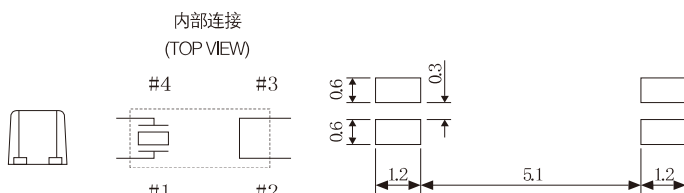
Top View Suggested Layout

石英晶体谐振器 (XTAL)
Crystal kHz Range

标准的7.0×1.5×1.4mm塑料封装表面贴装形式
小公差及高稳定性
适应自动装配的16mm宽度的编带包装
包装：每卷9000PCS



型号	Type	SMD 7.0*1.5
额定频率	Rated frequency	32.768kHz
调整频差	Frequency Tolerance(at25℃)	± 20ppm (Type)
工作温度	Operating Temperature Range	− 40℃~+85℃
贮存温度	Storage Temperature Range	− 55℃~+125℃
拐点温度	Inflection point temperature	+25℃ ± 5℃
负载电容	Load Capacitance	7pF, 9pF, 12.5pF
激励电平	Dtivel Level	0.5 μ W (1.0 μ W Max.)
频率温度系数	Frequency temperature coefficient	−0.04 × 10 ^{−6} /°C²Max
串联电阻	Equivalent Series Resistance	65k Ω Max.
串联电容	Equivalent Series Capacitance	1.9fF Typ.
静态电容	Shunt Capacitance	0.8pF Typ.
年老化率	Aging	± 3 × 10 ^{−6} /year Max. (第一年)



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