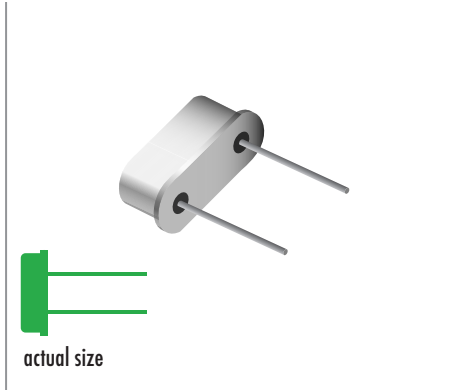




Quartz Crystal • SS3

Through Hole Quartz Crystal

Features

■ QS 9000 certified

■ temperature range up to 125°C

General Data

type	SS3 (HC49/U3H)
frequency range	3.2768 ~ 35.0 MHz (fund. AT-cut)
	27.0 ~ 60.0 MHz (3rd OT. AT-cut)
	30.0 ~ 50.0 MHz (fund. BT-cut)
frequency tolerance at 25 °C	± 30 ppm (± 50 ppm < 3.579545 MHz)
load capacitance C_L	12 pF ~ 32 pF or series
shunt capacitance C_0	< 5 pF
storage temperature	-40 °C ~ +125 °C
drive level max.	100 µW
aging	< ±5 ppm first year

ESR (series resistance R_s)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
3.276 ~ 3.499	fund.- AT	200	100
3.579 ~ 3.999	fund.- AT	120	80
4.000 ~ 5.999	fund.- AT	80	60
6.000 ~ 6.999	fund.- AT	70	35
7.000 ~ 8.999	fund.- AT	50	25
9.000 ~ 13.99	fund.- AT	35	15
14.00 ~ 35.00	fund.- AT	30	10
27.00 ~ 60.00	3rd OT - AT	100	60
30.00 ~ 50.00	fund.- BT	30	15

Frequency Stability vs. Temperature

		± 30 ppm	± 50 ppm	± 100 ppm	± 150 ppm	+10/-100 ppm
-20 °C ~ +70 °C	STD.	● ≥ 3.57 MHz	● < 3.57 MHz			○ BT-cut
-40 °C ~ +85 °C	T1	○	● ≥ 3.57 MHz	● < 3.57 MHz		
-40 °C ~ +105 °C	T2		○	○		
-40 °C ~ +125 °C	T3				○	

● standard
○ on request

Marking

frequency with load capacitance code company code / date code / internal code												
	Jan.	Febr.	Mar.	Apr.	May	June	July	Aug.	Sept.	Okt.	Nov.	Dec.
2001	A	B	C	D	E	F	G	H	J	K	L	M
2002	N	P	Q	R	S	T	U	V	W	X	Y	Z
2003	a	b	c	d	e	f	g	h	i	j	k	l
2004	n	p	q	r	s	t	u	v	w	x	y	z

Order Information

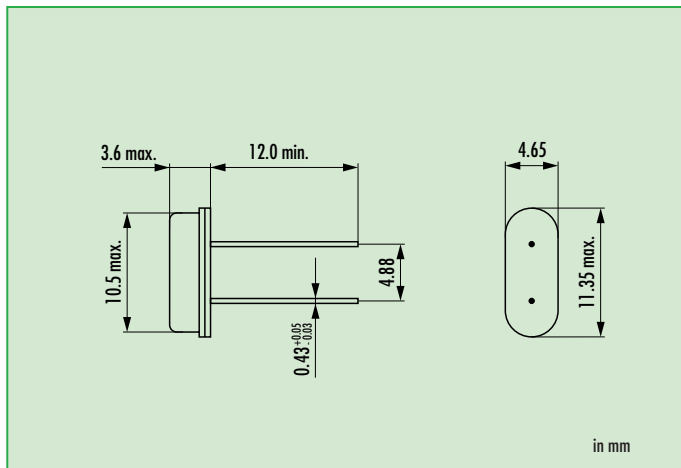
Q	frequency in MHz	type	load capacitance in pF	stability at 25 °C in ppm	stability vs. temp. range in ppm	option
Quartz	3.2768 ~ 60.0 MHz	SS3	30 pF standard 12 pF ~ 32 pF S for series	± 30 ppm standard ± 50 ppm < 3.57 MHz	see table	FU = fundamental AT-cut 3OT = 3rd overtone AT-cut BT = fundamental BT-cut T1 = -40°C ~ +85°C T2 = -40°C ~ +105°C T3 = -40°C ~ +125°C other see option table

Example: Q 30.0-SS3-30-30/50-FU-T1

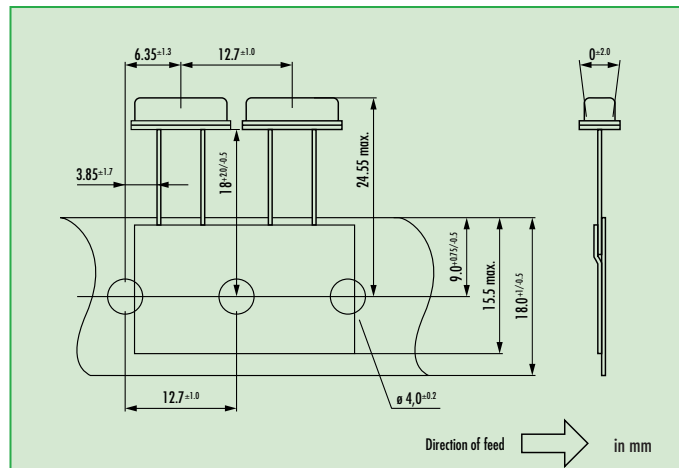


Quartz Crystal • SS3

Dimensions



Taping Specification



Load Capacitance Codes

7 pF: m	13 pF: v	18 pF: f	27 pF: w
8 pF: k	14 pF: x	20 pF: c	30 pF: .
9 pF: n	15 pF: j	22 pF: g	32 pF: e
11 pF: i	16 pF: b	24 pF: d	series: s
12 pF: a	17 pF: t	25 pF: r	T: 3rd OT

example 4.0 MHz / 12 pF: 4a000

Option Table

MP = middle pin	TR = taped
KIS = spacer	IS = insulation spacer
LL = lead length in mm	