

actual size

Quartz Crystal · MTF38

Through Hole Quartz Crystal

Features

■ RoHS compliant

■ 3x8 mm cylinder type

General Data

type	MTF38
frequency range	3.579545 ~ 40.0 MHz (fund. AT-cut) 30.0 ~ 91.0 MHz (3rd OT. AT-cut)
frequency tolerance at 25 °C	± 15 ppm ~ ± 30 ppm
load capacitance C_L	12 pF ~ 32 pF or series
shunt capacitance C_0	< 5 pF
storage temperature	-40 °C ~ +90 °C
drive level max.	500 µW (100 µW recommended)
aging	< ±5 ppm first year

ESR (series resistance R_s)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
3.57 ~ 3.6999	fund.- AT	180	80
3.70 ~ 4.0999	fund.- AT	150	60
4.10 ~ 5.9999	fund.- AT	120	40
6.00 ~ 9.9999	fund.- AT	70	30
10.0 ~ 13.999	fund.- AT	50	20
14.0 ~ 40.000	fund.- AT	40	15
30.0 ~ 91.000	3rd OT- AT	100	80

Frequency Stability vs. Temperature

		± 20 ppm	± 30 ppm	± 50 ppm
-20 °C ~ +70 °C	STD.	○	●	
-40 °C ~ +85 °C	T1		○	●

● standard
 ○ on request

Marking

frequency with
load capacitance code
company code / date code

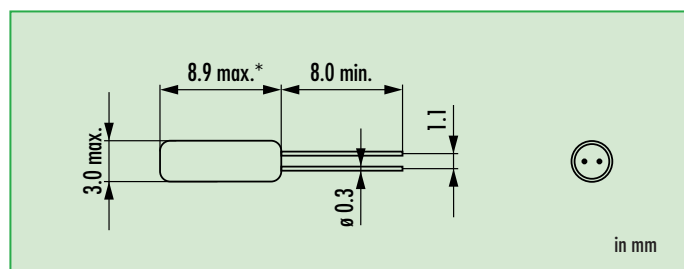
	Jan.	Febr.	Mar.	Apr.	May	June	July	Aug.	Sept.	Okt.	Nov.	Dec.
2004	n	p	q	r	s	t	u	v	w	x	y	z
2005	A	B	C	D	E	F	G	H	J	K	L	M
2006	N	P	Q	R	S	T	U	V	W	X	Y	Z
2007	a	b	c	d	e	f	g	h	i	j	k	l

Order Information

Q	frequency in MHz	type	load capacitance in pF	stability at 25 °C in ppm	stability vs. temp. in ppm	option
Quartz	3.579545 ~ 91.0 MHz	MTF38	30 pF standard 12 pF ~ 32 pF S for series	± 30 ppm standard	see table	blank = -20°C ~ +70°C FU = fundamental AT-cut 30T = 3rd overtone AT-cut T1 = -40°C ~ +85°C LF = Pb free contact pins / pads

Example: Q 30.0-MTF38-30-30/30-FU

Dimensions



Load Capacitance Codes

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

example 4.0 MHz / 12 pF: 4a000