



actual size

Quartz Crystal · MG3A

Surface Mount Quartz Crystal

Features

■ RoHS compliant

■ package height 5.0 mm

General Data

type	MG3A
frequency range	3.57120 ~ 48.0 MHz (fund. AT-cut)
	30.0 ~ 91.1750 MHz (3rd OT. AT-cut)
frequency tolerance at 25 °C	± 20 ppm ~ ± 50 ppm
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.	500 µW (100 µW recommended)
aging	< ±5 ppm first year

ESR (series resistance Rs)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
3.57 ~ 3.6999	fund.- AT	180	70-100
3.70 ~ 4.0999	fund.- AT	150	50-80
4.10 ~ 5.9999	fund.- AT	120	40-60
6.00 ~ 9.9999	fund.- AT	80	20-40
10.0 ~ 13.999	fund.- AT	50	15-35
14.0 ~ 19.999	fund.- AT	35	10-15
20.0 ~ 48.000	fund.- AT	20	10-15
30.0 ~ 91.175	3rd OT - AT	100	80

Frequency Stability vs. Temperature

		± 30 ppm	± 50 ppm	± 100 ppm	± 150 ppm	
-20 °C ~ +70 °C	STD.	○	●			
-40 °C ~ +85 °C	T1		○	●		
-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.	Ok.	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	k	l	m

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	3.5712 ~ 91.175 MHz	MG3A	30 pF standard 12 pF ~ 32 pF S for series	± 50 ppm standard	see table	blank = -20°C ~ +70°C FU = fundamental AT-cut 30T = 3rd overtone AT-cut T1 = -40°C~+85°C T2 = -40°C~+105°C T3 = -40°C~+125°C LF = Pb free contact pins / pads

Example: Q 30.0-MG3A-30-50/50-FU

