

**Data Sheet**

Product Category: SMD Quartz Crystal

Series Number
282Package
7 X 5Description
SMD 2 PadLast Modified
Jan. 01 2002**FEATURES**

- Seam welded metal lid / ceramic package
- 1.7mm max. low profile
- Tight stability / High reliability
- Wide frequency range
- Tape and Reel

**OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS**

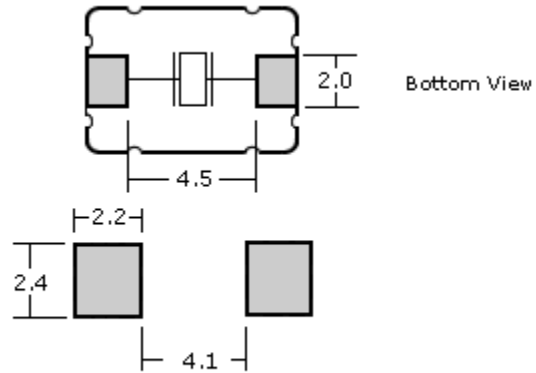
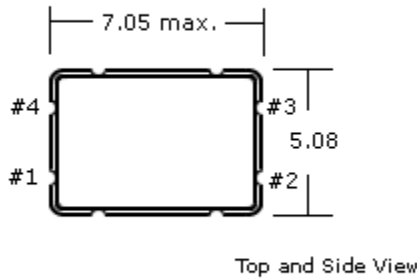
PARAMETERS		CHARACTERISTICS	UNITS
Frequency Range	f_o	9.80 ~ 100.00	MHz
Frequency Tolerance	@ 25°C	±30, ±15*, ±25, ±50	PPM
Frequency Stability	Ta = 0 +70°C	±50, ±25, ±30*, ±100	PPM
Operating Temperature	T _{OPR}	-0 ~ +70 (Std.) / Extended Options Avail.	°C
Storage Temperature	T _{STG}	-40 ~ +85	°C
Shunt Capacitance	C _O	5.0 max.	pF
Load Capacitance	C _L (Customer Specified)	20 (Std.) Series Resonance and others Avail.	pF
Drive Level	9.80 ~ 100.00 MHz	0.5 max.	µW
Aging	@ 25°C	±5	PPM/Y
Insulation Resistance	@ 100 VDC	500 min.	Mohms

*±15ppm Tolerance with ±30ppm Stability available in AT Cut Only

EQUIVALENT SERIES RESISTANCE / MODE OF OSCILLATION

FREQUENCY RANGE (MHz)	MODE	MAX ESR Ohm	FREQUENCY RANGE (MHz)	MODE	MAX ESR Ohm
9.800 ~ 15.999	Fundamental	60	16.000 ~ 34.999	3rd O/T	60
16.000 ~ 42.000	Fundamental	40	35.000 ~ 100.000	5th O/T	60

PACKAGE DIMENSIONS (mm)



PART NUMBER GUIDE

Series Number	Frequency	Load Capacitance	Tolerance @ +25oC	Tolerance Over Temp (oC)	Operating Temp (oC)	Packaging**
282	- 12.0M	- SR	- 50	N	U	- TR
Oscilent 7 x5 SMD 2 Pad	See table below for standard freq. and enter here e.g. 12.048M for 12.048 MHz OR enter any desire frequency.	Enter desired capacitance here. See table below for standard load capacitance e.g. - 20 for 20pF or Enter SR for Series.	Blank * = ±30 PPM 15 = ±15 PPM 25 = ±25 PPM 50 = ±50 PPM	Blank* = ±50 PPM E = ±25 PPM G = ±30 PPM N = ±100 PPM	U = 0~+70 S = -20~+70 W = -40~+85	Blank* = Bulk TR = Tape/Reel
<p>NOTE: Deviations on all parameters available. Please consult Oscilent for details. DEFINITIONS: Click on the characteristic names above for definitions of that particular characteristic. *STANDARDS: "Blank" part number selections indicate standard variables for that particular characteristic. **PACKAGING: Click on the packaging name above for tape/reel specifications</p>						

STANDARD FREQUENCIES / LOAD CAPACITANCE - FOR GUIDE ONLY / OTHER FREQ/LOADS AVAILABLE

FREQUENCY (MHz)	LOAD (pF)							
	Series	12	13	16	17	18	20	30
9.8304	Std.	-----	-----	-----	-----	-	Std.	-----
10.000	Std.	-	-	-	-	-	-	-
11.0592	Std.	-	-	-	-	-	Std.	-
12.000	Std.	-	-	-	-	-	-	-
14.31818	Std.	-	-	-	-	-	Std.	-
16.000	Std.	-	-	-	-	-	-	-
18.432	Std.	-	-	-	-	-	-	-
19.6608	Std.	-	-	-	-	-	-	-
20.000	Std.	-	-	-	-	-	Std.	-
24.000(F)	Std.	-	-	-	-	-	Std.	-
24.00014 (F)	Std.	-	-	-	-	-	-	-
30.000 (F)	Std.	-	-	-	-	-	-	-
30.000 (OT)	Std.	-	-	-	-	-	-	-
32.000 (F)	Std.	-	-	-	-	-	-	-

32.000 (OT)	Std.	-	-	-	-	-	-	-
33.000 (OT)	Std.	-	-	-	-	-	-	-
33.8688 (F)	-	-	-	-	-	-	-	-
35.2512(OT)	Std.	-	-	-	-	-	-	-
36.000 (F)	Std.	-	-	-	-	-	-	-
36.000 (OT)	Std.	-	-	-	-	-	-	-
40.000 (F)	Std.	-	-	-	-	-	-	-
40.00 (OT)	Std.	-	-	-	-	-	-	-
40.32 (F)	Std.	-	-	-	-	-	-	-
40.32 (OT)	Std.	-	-	-	-	-	-	-
FREQUENCY (MHz)	Series	12	13	16	17	18	20	30
	LOAD (pF)							
F = Fundamental OT = 3RD OT								
NOTE: Other frequencies and load capacitance available. Please consult Oscilent for part numbers.								

Oscilent Corporation - CALL **949.252.0522**

Series No.: **282**

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