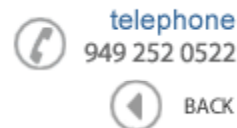




Data Sheet



Product Category: SMD Quartz Crystal

Series Number	Package	Description	Last Modified
290	6 X 3.5	SMD Quartz Crystal	Jun. 25 2003

FEATURES

- Seam welded metal lid / ceramic package
- 1.2mm max. low profile
- Tight stability / High reliability
- Wide frequency range
- Tape and Reel

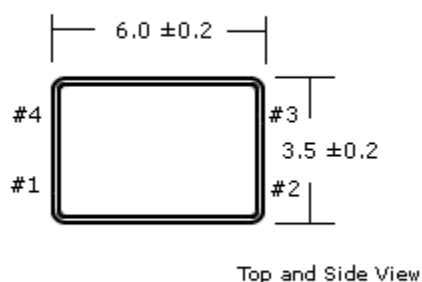


OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

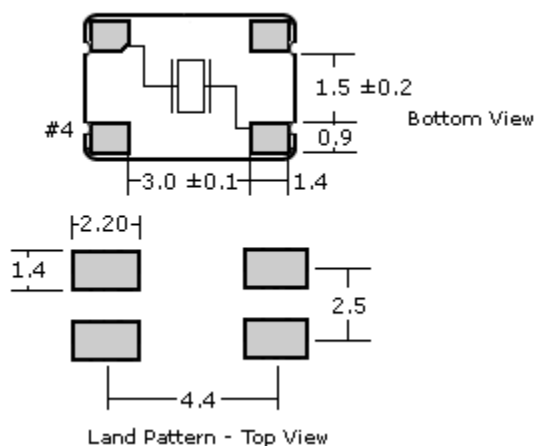
PARAMETERS		CHARACTERISTICS	UNITS
Frequency Range	f_o	10.00 ~ 40.00	MHz
Frequency Tolerance	@ 25°C	$\pm 10 \sim \pm 50$	PPM
Frequency Stability	Ta = -10 +70°C	$\pm 10 \sim \pm 100$	PPM
Operating Temperature	T _{OPR}	-10 ~ +60 (-40 ~ +85 optional)*	°C
Storage Temperature	T _{STG}	-40 ~ +85	°C
Shunt Capacitance	C _O	7.0 max.	pF
Load Capacitance	C _L (Customer Specified)	16, 20, 30, Series	pF
Equivalent Series Resistance	10.00 ~ 40.00 MHz	50 max.	Ohm
Mode of Oscillation	10.00 ~ 40.00 MHz	Fundamental	-
Drive Level	10.00 ~ 40.00 MHz	0.01 ~ 1000	μW

* Consult Oscilent for available variations of temperature and stability

PACKAGE DIMENSIONS (mm)



Top and Side View



Land Pattern - Top View

PART NUMBER GUIDE

Series Number	Frequency	Load Capacitance	Tolerance @ +25°C	Tolerance Over Temp (°C)	Operating Temp (°C)	Packaging**
290	- 12.0M	- SR	- 05	G	R	- TR
Oscilent 6 x 3.5 SMD	See table below for standard freq. and enter here	Enter desired capacitance here. See table below	Blank * = ± 30 PPM or Fill in E.G	Blank* = ± 50 PPM G = ± 30 PPM	P = 0~+50 R = -10~+60	Blank* = Bulk TR = Tape/Reel

e.g. 12.0M for 12.000 MHz OR enter any desire frequency.	for standard load capacitance e.g. - 20 for 20pF or Enter SR for Series.	05 = ± 5 PPM 25 = ± 25 PPM Avail. = $\pm 5 \sim \pm 100$	J= ± 25 PPM H= ± 20 PPM L= ± 10 PPM N= ± 100 PPM	S = -20~+70 T = -30~+80 W = -40~+85	
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					

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

FREQUENCY (MHz)	LOAD (pF)							
	Series	12	13	16	17	18	20	30
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.: 290

18195 East McDermott Street , Building D , Irvine , CA 92614 , USA
 Fax: 949.252.0599 , E-Mail: Sales@Oscilent.com

