Package	Description
3.2 x 2.5 mm Chip Type	**SMD Quartz Crystal**

Features

- Compact and Thin (0.65mm profile)
- Heat and Shock Resistance
- Suitable application includes telecommunications equipment, short-range radio link modules, DVC, DSC, PDA, and PC
- RoHs/ Lead Free compliant

Electrical Characteristics

Parameter	Symbol	Condition	Minimum	Typical	Maximum	Units
Frequency Range	Fo	-	13	-	54	MHz
Frequency Tolerance	F/Fo	@ 25ºC	±10	-	±30	ppm
Temperature Stability	Tc	REFTO25ºC	±10	-	±30	ppm(ºC)
Operating Temperature	TORP	-	-20	-	+70	ºC
Storage Temperature	TSTG	-	-40	-	+85	ºC
Shunt Capacitance	Co	-	-	-	3	pF
Load Capacitance	CL	-	8	-	30	pF
Insulation Resistance	IR	-	500	-	-	M
Drive Level	DL	100VDC	10	100	300	µ W
Aging	Fa	@25ºC per year	-2.0	-	+2.0	Ppm

Operation Mode and Motional Resistance

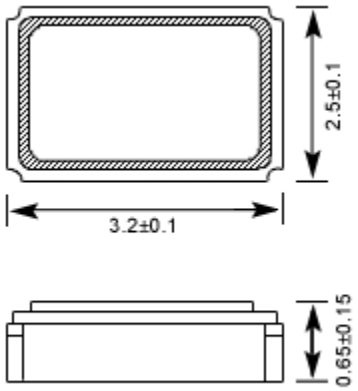
Frequency Range	Mode	Ohm Max
13.000 ~ 19.999	Fundamental	80
20.000 ~ 25.999	Fundamental	70
26.000 ~ 54.000	Fundamental	50

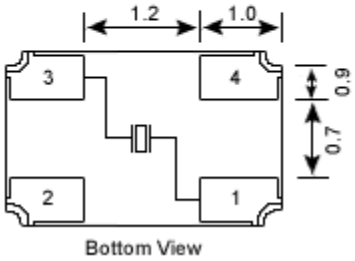
Part Numbering Guide

Series Number	Frequency	Load Capacitance	Tolerance @ +25°C	Frequency Stability Over Temp (°C)	Operating Temp (°C)	Packaging**
278	25.0M	09	15	K	S	TR
Oscilent 3.2 x 2.5 SMD	Enter desired frequency.	Enter desired capacitance here.	Blank * = ±30 PPM 10 = ±10 PPM 15 = ±15 PPM 20 = ±20 PPM 25 = ±25 PPM 50 = ±50 PPM **Avail. = ±10 ~ ±30**	Blank* = ±50 PPM G = ±30 PPM H = ±20 PPM K = ±15 PM L = ±10 PPM N = ±5 PPM M = ±100 PPM **Avail. = ±10 ~ ±30**	P = 0~+50 R = -10~+60 S = -20~+70 T = -30~+80 W = -40~+85	Blank* = Bulk TR = Tape/Reel

NOTE: Deviations on all parameters available. Please consult Oscilent for details.
***STANDARDS:** "Blank" part number selections indicate standard variables for that particular characteristic.

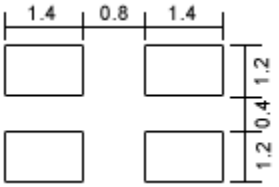
Package Dimensions





Bottom View

Solder Pad Layout



Tape & Reel

- 1000 pieces per reel
- Compliant to EIA-481
- All Dimensions in Millimeters