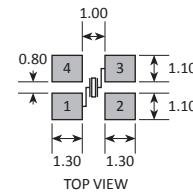


SOLDER PAD LAYOUT



PAD	CONNECTION
1	Crystal
2	Ground & lid
3	Crystal
4	Ground & lid

## Features

- ▶ Metal lid can be grounded to minimise EMI
- ▶ Seam seal for excellent long-term stability
- ▶ Tight specifications available
- ▶ Ultra-miniature for maximum space saving

## Temperature Stability

The table shows available combinations of stability (in ppm) and temperature range.

	±30	±20	±15	±10	±7.5
-10 to +60°C	●	●	●	●	●
-20 to +70°C	●	●	●	●	-
-30 to +80°C	●	●	●	-	-
-40 to +85°C	●	●	-	-	-

## Specifications

Parameters	Product	Option Codes
	GSX-331	
<b>Frequency range:</b> 10.0 ~ 54.0MHz 54.0 ~ 125MHz (3rd overtone)	■ □	
<b>Calibration tolerance:</b> ±7.5ppm ±10ppm ±20ppm ±30ppm Other values	□ ■ □ □ □	M 1 2 3 specify
<b>Temperature stability:</b> ±7.5ppm ±10ppm ±15ppm ±20ppm ±30ppm Other values	□ ■ □ □ □ □	M 1 P 2 3 specify
<b>Operating temperature range:</b> -10 to +60°C -20 to +70°C -30 to +80°C -40 to +85°C Other values	□ ■ □ □ □	1 2 3 4 specify
<b>Storage temperature range:</b> -40 to +90°C	■	
<b>Circuit condition:</b> 10pF 12pF 16pF 20pF Other values	□ □ ■ □ □	A B D F specify
<b>Oscillation mode:</b> Fundamental 3rd overtone	■ □	F 3
<b>Static capacitance (C<sub>0</sub>):</b> 5pF max	■	
<b>Equivalent series resistance (max):</b> 100Ω max (10.0 ~ 15.99MHz) 80Ω max (16.0 ~ 18.99MHz) 60Ω max (19.0 ~ 29.99MHz) 40Ω max (30.0 ~ 54.0MHz, fund) 100Ω max (54.0 ~ 125MHz, 3rd OT)	■ ■ ■ ■ ■	
<b>Ageing:</b> ±3ppm max first year ±1ppm max first year	■ □	specify
<b>Test drive level:</b> 10μW	■	
<b>Soldering condition:</b> 260°C, 10 sec x2 max	■	

■ Standard. □ Optional - Please specify required code(s) when ordering

## Ordering Information

Product name + option codes + frequency

eg: **GSX-331/112DF 12.80MHz** 10/10/20/16-F

**GSX-331/MP2JF 24.5760MHz** 7.5/15/20/30-F

Option code X (eg GSX-331/X) denotes a custom specification.

- ◆ Available on T&R - 3k pcs per reel.
- ◆ Refer to our website for T&R and soldering details.