

Quartz Crystals

MP4G , MP5G

[12.9 * 4.5 * 4.8 (3.8) mm]

MP24G , MP25G

[11.4 * 5.0 * 4.8 (3.8) mm]

SMD

Fundamental

3rd Overtone

Min.

3.2 MHz

Max.

70 MHz

Features

Specifications

- Designed for top board assembly and an one time solder reflow only
- Do not mount with the metal housing downward



RoHS Compliance

General Specifications

Item / Type	MP4 (12.9 * 4.5 * 3.8 mm) series	MP5 (12.9 * 4.5 * 4.8 mm) series
	MP24 (11.4 * 5.0 * 3.8 mm) series	MP25 (11.4 * 5.0 * 4.8 mm) series
Frequency Range & Crystal Cut	3.200 ~ 48.000 MHz , AT-cut , Fundamental Mode (see Table 1) 27.000 ~ 70.000 MHz , AT-cut , 3rd overtone (see Table 1)	
Load Capacitance	Series or Parallel (8 to 32 pF) resonance	
Drive Level	100μ W typical (500μ W max.)	
Frequency Tolerance	± 10 ppm , ± 20 ppm or ± 30 ppm (max.) at 25°C	
Frequency Stability	See Table 2	
Aging	ΔF / F : ±3 ppm / year (max.)	
Storage Temperature Range	- 50°C to 105°C	

Table 1

ESR (Equivalent Series Resistance)					
Freq.(MHz)	E.S.R.	Osc. Mode	Freq.(MHz)	E.S.R.	Osc. Mode
3.2 ~ 3.4	300 Ω	AT , Fund.	27.0 ~ 30.0	150 Ω	AT , 3rd
3.5 ~ 6.0	120 Ω		30.1 ~ 50.0	100 Ω	
6.1 ~ 10.0	60 Ω		50.1 ~ 70.0	80 Ω	
10.1 ~ 30.0	40 Ω				

Table 2

Frequency stability Vs Operating temperature range						
Stability code	Temp. (°C) \ ppm	± 10	± 15	± 20	± 25	± 30
X	-10 to 60°C	○	○	○	○	○
Y	-20 to 70°C	▲	○	○	○	○
I	-40 to 85°C		○	○	○	○

○ : available ; ▲ : contact Mercury

Outline Dimensions (Unit : mm)

[MP4G] ; [MP5G]	[MP24G] ; [MP25G]
<p>Top View: 12.9 ± 0.2, 4.5 ± 0.2</p> <p>Side View: 10.2, 1.8, H</p> <p>Bottom View: 9.0, 1.2</p> <p>Suggested land pattern: 9.0, 3.6</p> <p>MEC P/N H (height) MP5G 4.8 mm (max.) MP4G 4.1 mm (max.)</p>	<p>Top View: 11.4 ± 0.2, 5.0 ± 0.2</p> <p>Side View: 10.2, 1.8, H</p> <p>Bottom View: 9.5, 3.0</p> <p>Suggested land pattern: 4.88, 4.0</p> <p>MEC P/N H (height) MP25G 4.8 mm (max.) MP24G 3.8 mm (max.)</p>