

■ Features

- High temperature plastic molded lead frame SMD
- High frequency fundamental mode is available in BT-cut
- Lowest cost among all Mercury SMD crystals



General Specifications

| | |
|-------------------------------|------------------------------------------------------------------------------|
| Item / Type | MP4 (12.9 * 4.5 * 3.8mm) , MP5 (12.9 * 4.5 * 4.8mm) series |
| Frequency Range & Crystal Cut | 3.2.000 ~ 48.000 MHz , AT-cut , Fundamental Mode (see Table 1) |
| | 27.000 ~ 70.000 MHz , AT-cut , 3rd overtone (see Table 1) |
| | 24.000 ~ 48.000 MHz , BT-cut , Fundamental Mode (see Table 1) |
| Load Capacitance | Series Resonance or Parallel (8 to 32 pF typical) |
| Drive Level | 100μ W (500μ W max.) |
| Frequency Tolerance | ± 5 ppm , ± 10 ppm , ± 20 ppm or ± 30 ppm 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
Series Resistance (max.)

| Freq. (MHz) | Osc. Mode | E.S.R | Freq. (MHz) | Osc. Mode | E.S.R |
|-------------|------------|-------|-------------|------------|-------|
| 3.2 ~ 3.4 | AT , Fund. | 300 Ω | 24.0~ 48.0 | BT , Fund. | 40 Ω |
| 3.5 ~ 6.0 | AT , Fund. | 120 Ω | 27.0~ 30.0 | AT , 3rd | 150 Ω |
| 6.1~ 10.0 | AT , Fund. | 60 Ω | 30.1~50.0 | AT , 3rd | 100 Ω |
| 10.1~ 30.0 | AT , Fund. | 40 Ω | 50.1~70.0 | AT , 3rd | 80 Ω |

Table 2
Frequency stability Vs Operating temperature range

| 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)

