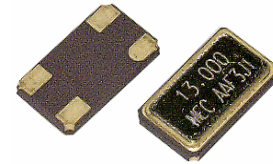




RoHS Compliance

■ Features

- RoHS compliant and lead-free product
- The whole package is grounded via the topmetal lid and the two bottom pads .
- Tight tolerance and tight stability. Ideal for telecommunications
- Withstand solder reflow. EIA-481A tape and reel.



General Specifications

Item / Type	MF series ( 6.0 * 3.5 * 1.0 mm )
Frequency Range & Crystal Cut	10.000 ~ 50.000 MHz , AT-cut , Fundamental Mode ( see Table 1 )
	30.000 ~ 125.000 MHz , AT-cut , 3rd overtone ( see Table 1 )
Load Capacitance	Series Resonance or Parallel ( 8 to 32 pF typical )
Drive Level	10μ W ( 100μ 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.
10.0 ~ 12.0	AT , Fund.	80 Ω	30.0~ 40.0	AT , 3rd	100 Ω
12.1 ~ 16.0	AT , Fund.	60 Ω	40.1~ 50.0	AT , 3rd	80 Ω
16.1~ 50.0	AT , Fund.	40 Ω	50.1~ 125.0	AT , 3rd	50 Ω

Table 2  
Frequency stability Vs Operating temperature range

Temp. (°C) \ ppm		± 5	± 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 )

