

# YIC Quartz Crystal Unit (MC306, SM38A, SM26B, SM26BSP)

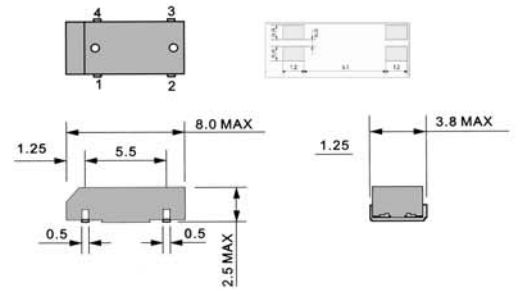
## MC306 : Tuning Fork SMD Quartz Crystal

32.768KHz

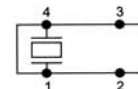
### ● SPECIFICATION

Type	MC306	Conditions
Frequency Range	32.768KHz	
Load Capacitance	7pF or 12.5pF	
Drive Level	1μ W Max.	
Frequency Tolerance	± 20ppm	at 25°C
Series Resistance	50KΩ Max.	
Turnover Temperature	25°C±5°C	
Temperature Coefficient	-0.035±0.01ppm/C <sup>2</sup>	
Operating Temperature Range	-40°C~+85°C	at 25°C
Storage Temperature Range	-55°C~+125°C	
Motional Capacitance	0.0028pF Typical	Depend on frequency
Shunt Capacitance	1.45pF Typ.	Depend on frequency
Capacitance Ratio (C0/C1)	500 Typical	Depend on frequency
Aging	±5ppmMax.	25°C±3°C
Quality Factor	50000 Typical	Depend on frequency
Insulation Resistance	500MΩ Min	DC100V±5V (Pin to Pin, Pin to case)

### ● DIMENSIONS (mm)

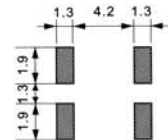


### ● INTERNAL CONNECTIONS



Pin#2 and #3 should be soldered to be OPEN electrically to the PCB.

### ● Recommended Land Pattern



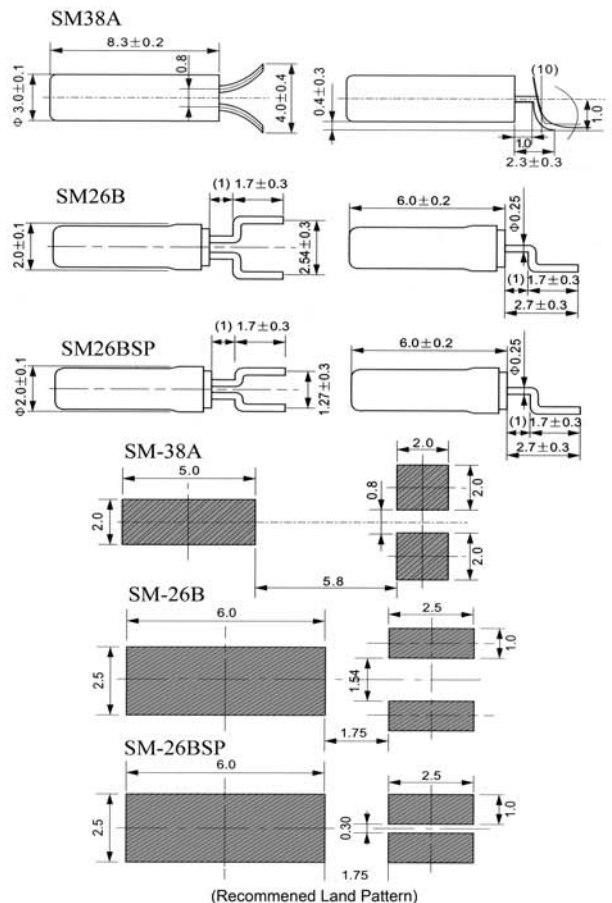
## SM38A, SM26B, SM26BSP Series: Tuning Fork SMD Type

30.000 - 200.000KHz

### ● SPECIFICATION

Type	SM38A	SM26B	SM26BSP
Frequency Range	30-100KHz	30- 200KHz	30 - 200KHz
Load Capacitance	7pF, 12.5pF	7pF, 12.5pF	7pF, 12.5pF
Drive Level	1.0μW max	1.0μW max	1.0μW max
Frequency Tolerance	±20PPM Typical	±20PPM Typical	±20PPM Typical
Series Resistance	30KΩ max	40KΩ max	40KΩ max
Turnover Temperature	25±5°C	25±5°C	25±5°C
Temperature Coefficient	-0.035±0.01PPM/C <sup>2</sup>	-0.035±0.01PPM/C <sup>2</sup>	-0.035±0.01PPM/C <sup>2</sup>
Operating Temperature Range	-10 ~ +70°C	-10 ~ +70°C	-10 ~ +70°C
Storage Temperature Range	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C
Motional Capacitance	0.0035pF Typical	0.0028pF Typical	0.0028pF Typical
Shunt Capacitance	1.75pF Typical	1.45pF Typical	1.45pF Typical
Capacitance Ratio	500 Typical	500 Typical	500 Typical
Aging	±5ppm Max.	±5ppm Max.	±5ppm Max.
Quality Factor	60000 Typical	50000 Typical	50000 Typical
Insulation Resistance	500 MΩ min	500MΩ min	500MΩ min

### ● DIMENSIONS(mm)



Soldering the body of the cylinder type crystal units with PCB must be avoided due to deteriorate the characteristics or damage the products.  
Rubber adhesive is recommended.

(Recommended Land Pattern)