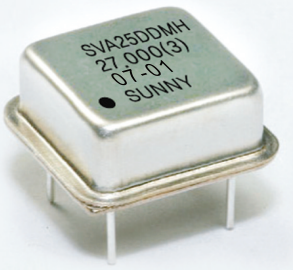


RoHS

DIP TYPE
SVA(HALF)

- Voltage Controlled Crystal Oscillator
- HCMOS/TTL output
- 3.3 / 5.0 supply voltage
- 8 pin DIP package
- Custom lead length options available
- Wide frequency and pull range

■ ELECTRICAL SPECIFICATIONS

Frequency Range	1.000 to 200.000MHz		
Operating Temperature Range	0 to +70℃ or -40 to +85℃		
Storage Temperature Range	-40 to +85℃		
Supply Voltage(V_{DD})		5.0V_{DC} ±5%	3.3V_{DC} ±5%
Aging (at 25℃)	±3ppm/year max.		
Load Drive Capability	10 TTL Load or 15pF HCMOS Load		
Start-up Time	10ms max.		
Frequency Deviation / Pin 1 Control Voltage	2.5V_{DC} ±2.0V_{DC} 2.5V_{DC} ±2.5V_{DC} 1.65V_{DC} ±1.65V_{DC}(or ±1.5V_{DC})	±10, ±30, ±50, ±100, ±150ppm min. ±10, ±30, ±50, ±100, ±150, ±200ppm min. ±10, ±30, ±50, ±100, ±150ppm min. ±300ppm min.(Optional)	
Linearity	±20, ±15, ±10, ±5%(Optional)		
Input Current	1.000 to 20.000MHz 20.001 to 40.000MHz 40.001 to 80.000MHz 80.001 to 125.000MHz 125.000 to 200.000MHz	26mA max. 40mA max. 60mA max. 70mA max. 80mA max.	17mA max. 25mA max. 35mA max. 45mA max. 65mA max.
Frequency Stability	±50, ±25, ±20, ±10ppm(See Table1.)		
Output Voltage Logic High(V_{OH})	w/TTL Load w/HCMOS Load	2.4V_{DC} min. 90% of V_{DD} min.	
Output Voltage Logic Low(V_{OL})	w/TTL Load w/HCMOS Load	0.4V_{DC} max. 10% of V_{DD} max.	
Duty Cycle	at 50% of Waveform w/HCMOS Load or 1.4V_{DC} w/TTL Load	50 ±10% (STD) 50 ±5% (Optional)	
Rise / Fall Time	5ns max.		
Period Jitter : pk-pk	100ps max.		
Period Jitter : One Sigma	25ps max.		

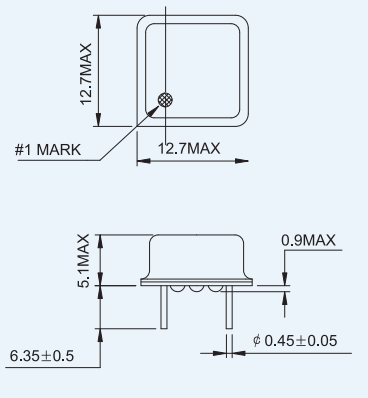
Part Numbering Guide

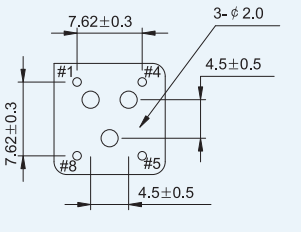
MODEL (PKG TYPE)	SUPPLY VOLTAGE	FREQUENCY STABILITY	OPER-TEMP RANGE	DUTY CYCLE	DEVITION	PACKING	FREQUENCY (MHZ)
SVA(H)	BLANK : 5.0V 3 : 3.3V	TABLE1 REFERENCE	TABLE1 REFERENCE	D : 45 : 55 BLANK : 40 : 60	A : ±10ppm min. B : ±30ppm min. C : ±50ppm min. D : ±100ppm min. E : ±150ppm min. F : ±200ppm min. G : ±300ppm min. SPH : ONLY A ~ E SP,SL : ONLY C, D	BLANK : BULK R : TAPE & REEL	xx.xxx(STD) xx.xxxxxx

Table1.

FREQUENCY STABILITY vs. TEMPERATURE RANGE								
Temp \ Stability		±10ppm	±15ppm	±20ppm	±25ppm	±30ppm	±50ppm	±100ppm
		10	15	20	25	30	50	100
0 ~ 50℃	A	*	*	*	*	*	*	*
0 ~ 60℃	B	*	*	*	*	*	*	*
-10 ~ 60℃	C	*	*	*	*	*	*	*
0 ~ 70℃	D		*	*	*	*	*	*
-10 ~ 70℃	E		*	*	*	*	*	*
-20 ~ 70℃	F		*	*	*	*	*	*
-40 ~ 85℃	G				*	*	*	*

■ MECHANICAL DIMENSIONS (mm)





PIN CONNECTION

#1	V.C
#4	GND
#5	OUTPUT
#8	V_{DD}