

**HS**

50Ω load

**HSR**

10KΩ//10pF load

**True Sine Wave****Thru-Hole****SMD****2.8V****3.3V****5.0V**

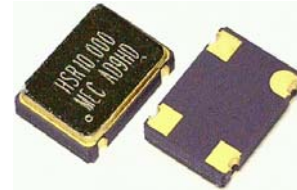
Min.

**10MHz**

Max.

**52MHz****Applications**

- True Sine wave clock oscillators in 3.2x5.0 mm and 5.0x7.0 mm SMD. First in the market .
- High purity and low total harmonic distortion. Ideal for audio modulation applications .
- For VCXOs with sine wave output, please refer to GS series



RoHS Compliance

**General specifications of all available packages , at Ta=+25°C**

Model	" HS " series			" HSR " series		
Load	50Ω. (Internally AC coupled)			10 KΩ // 10 pF load		
Output Wave Form	True Sine Wave					
Input Voltage ( V <sub>DD</sub> )	+3.3V D.C.±5%	+5.0V D.C.±10%	+2.8V D.C.±5%	+3.3V D.C.±5%	+5.0V D.C.±10%	
Frequency Range	10.0 ~ 800.0MHz	10.0 ~ 156.0MHz	10.0MHz ~ 52.0MHz			
Output Level	Standard: +3.0 dBm min. Tolerance: ± 1 dB Maximum Power: +7 dBm ( User to specify )	Standard: +5.0 dBm min. Tolerance: ± 1 dB Maximum Power: +13 dBm ( User to specify )	1.0 V p-p typical			
Current Consumption	10 MHz : 9 mA ( typ. )	10 MHz : 18 mA ( typ. )	1.0 mA	1.5 mA	1.2 mA	
	100 MHz : 18 mA ( typ. )	100 MHz : 34 mA ( typ. )				
	150 MHz : 19 mA ( typ. )	150 MHz : 36 mA ( typ. )				
Harmonics	< - 30dBc (frequency dependent)			< - 25dBc (frequency dependent)		
Start -up Time	6.0 m Sec.( typ. )			2.0 m Sec.( typ. )		
Storage Temperature	- 50°C to 100°C			- 55°C to 125°C		
Pin 1 option	Tri-state , Output disable when taken low			No Tri-state option		
Frequency Stability <sup>(1)</sup> Codes	Frequency Stability over Operating Temperature Range	± 25 ppm	± 50 ppm	± 100 ppm	If non-standard please enter the desired stability after the " C " or " I " . represents . For example :	
	Commercial ( -10°C to +70°C )	A	B	C	" C20 " : ±20 ppm over -10°C to +70°C	
	Industrial ( -40°C to +85°C )	D	E	F	" I20 " : ±20 ppm over -40°C to +85°C	
Sub-Harmonics	None					
Aging	± 5 ppm per year (max.)					

Note : (1) Inclusive of 25°C tolerance , operating temperature range , ±10% input voltage variation , load change , aging , shock and vibration.

**Mercury** [www.mercury-crystal.com](http://www.mercury-crystal.com)

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