

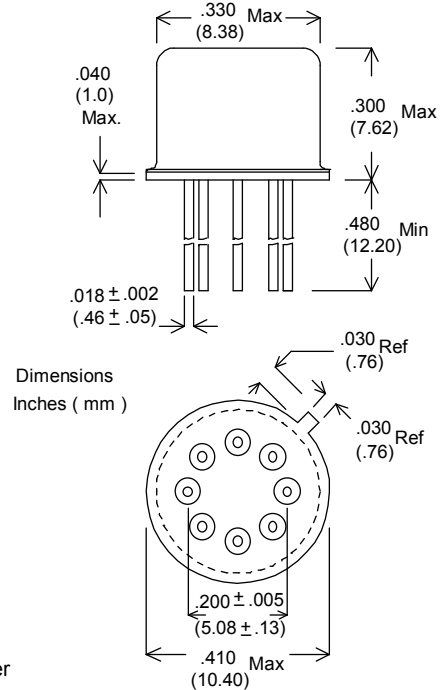


XE20 - 200A SERIES (HC/ACMOS), 5.0 VDC High Reliability Hybrid Microcircuit Crystal Oscillators



Frequency Range	400 KHz to 100 MHz
Frequency Accuracy at + 25 °C	± 15 PPM
Frequency Stability Vs. Temperature	See Options Below
Operating Temperature Range	See Options Below
Input Voltage	+ 5 VDC ± 10%
Input Current at +5.0 VDC (No Load)	
400 KHz to 5.0 MHz	10 mA Max.
5.1 MHz to 20.0 MHz	20 mA Max.
20.1 MHz to 40.0 MHz	30 mA Max.
40.1 MHz to 60.0 MHz	40 mA Max.
60.1 MHz to 100.0 MHz	60 mA Max.
Output	HC/ACMOS
Load	10 KΩ // 15 pf
Symmetry: @ 50% Output Level	
< 30 MHz	55/45% Max
≥ 30 MHz	60/40% Max.
Rise & Fall Times (10% to 90% Level)	
< 30 MHz	6 nS Max.
≥ 30 MHz	3 nS Max.
Enable/Disable	See Options Below
Start-Up Time	5 mS Max.
Phase Jitter (10 KHz to 20 MHz Integrated)	0.15 pS rms Typical
Frequency Stability Vs. 10% change in Voltage	± 4 PPM Max.
Aging at +70 °C	± 3 PPM Max. first year, ± 2 PPM Max./ Yr. thereafter
Package & Hermeticity	Conforms to the Requirements of MIL-PRF-55310
Lead Material & Finish	Kovar, 50 to 80 Microinches gold over 100 to 250 microinches Nickel, Hot Solder Tinning per MIL-PRF-55310 is optional at additional cost.
Lead Soldering, Temp./Time	260 °C Max for 10 Seconds Max.
Package Weight & Thermal Resistance (θ _{JC})	1.0 Gms typical, 50 °C / Watt

- **Ruggedized 4 point crystal mount**
- **High Shock & Vibration**
- **Low Profile Surface Mount**
- **Tristate Output Available**



Pin #	Function
3	E/D (Optional)
4	GND/CASE
5	OUTPUT
8	B+
All Others	N/C

ORDERING INFORMATION (Select from options below) :

XE20 - 2
Model #

A

FREQUENCY

Frequency Stability

- 1 = ± 0.1%
- 2 = ± 0.05%
- 3 = ± 100 PPM
- 4 = ± 50 PPM
- 5 = ± 20 PPM*
- 6 = ± 10 PPM*
- 7 = ± 25 PPM*

*Options 5, 6 & 7 are not available for all operating temperature range options

Operating Temperature Range

- 1 = 0 °C to + 70 °C
- 2 = - 40 °C to + 85 °C
- 3 = - 55 °C to +125 °C
- 4 = - 55 °C to +105 °C
- 5 = - 40 °C to + 95 °C
- 6 = - 20 °C to + 70 °C

883B = Mil-Screening, Leave Blank Otherwise
H = Hi-Rel Screening, Leave Blank Otherwise
G = *Enable/Disable, Leave Blank Otherwise

***Enable/Disable Input:** A "low" level at the input disables the output to a HI-Z state. Enable/disable input has internal pull-up.

EXAMPLE: XE20 - 243AG - 883B - 24.000 MHz = HC/ACMOS Output, Enable/ Disable Option, ± 50 PPM over -55 °C to +125 °C, Mil - Screened , 24.000 MHz