

MIL-55310/25-Series Specifications

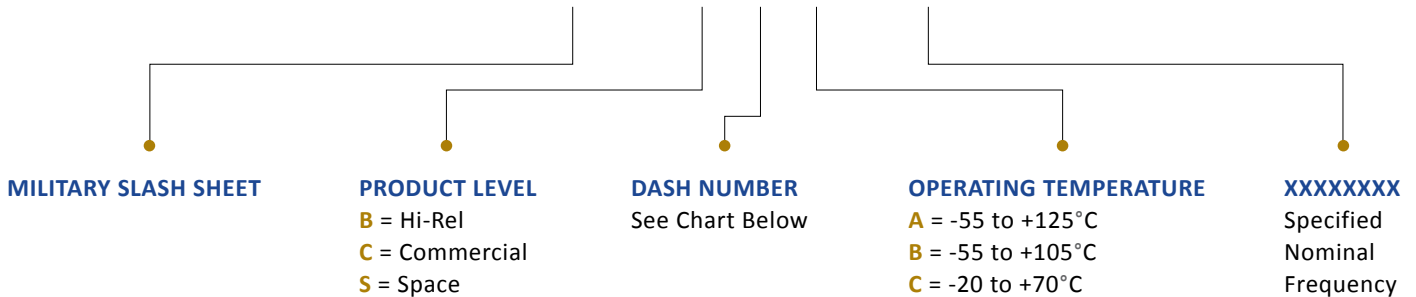


A – 0.887L x 0.540W x 0.200H (in)

B – 0.815L x 0.515W x 0.200H (in)

PDI MIL-PRF-55310/25 Oscillators are available in both standard and custom frequencies to provide precision timing in a hermetically sealed package for military and space applications. PDI provides quick-turn sampling for your proto-typing needs, mass production capability, and competitive pricing.

ex) **M55310/25–B–02–A–25M00000**



Dash No. Package	Frequency Range MHz	Supply Current mA Max.	Rise/Fall Times nS Max.	Duty Cycle @ 50% Vcc	Load Ohms Max.	Tolerance @ 23°C ppm Max.	Aging Per Year ppm Max.	Operating Temperature		
								(A)	(B)	(C)
02 03	25.000000 – 60.000000	50	3.5	40 to 60%	50	±15	±5	±65	±55	±40
06 07		75			100					
10 11	25.000000 – 60.000000	50	3.5	40 to 60%	50	±25	±10	±100	±75	±50
14 15		75			100					
Aging Per Year (Max.)							5 ppm	10 ppm		
Maximum Change Over 30 Days							±0.7 ppm	±1.5 ppm		
Projected Maximum Change for 1 Year After 30 Days							±5.0 ppm	±10.0 ppm		

NOTES:

All product supplied in anti-static packaging.
 The product described in this spec. consist of this specification, MIL-PRF-55310 and 55310/22.
 Decimal XXX = ± .008, XX = ± .020 Metric [XXX = ± .20], [XX = ± .50]
 Specifications subject to change without notice, last updated 4/1/13.

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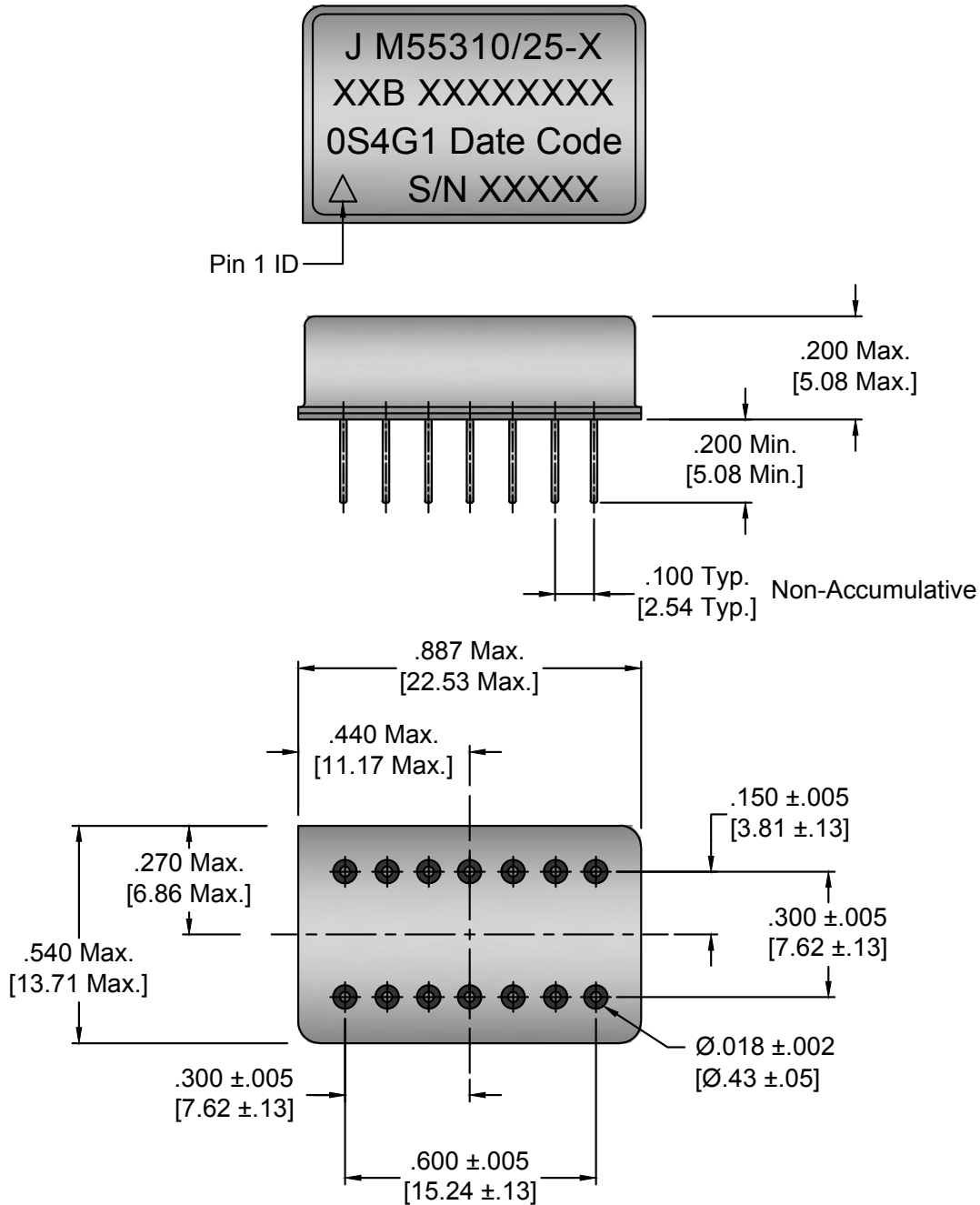
Parameter		Frequency Range		Units
		25.000000 to 60.000000 MHz		
Frequency Stability	vs Temperature (Max.)			ppm
	-20 to +70°C (Type C)	Per Chart		
	-55 to +105°C (Type B)	Per Chart		
	-55 to +125°C (Type A)	Per Chart		
	vs Supply Voltage (Max. for a 10% charge)	±1.0		
	vs Aging (@ +70°C ± 2.0°C) (Max.)	5 Per Year	10 Per Year	
	Change Over 30 Days	±0.7	±1.5	
	Projected Change for 1 Year after 30 Days	±5.0	±10.0	
	Tolerance (@ +25°C ± 1.0°C) (Max.) Within 30 Days of Shipment	Per Chart		
Temperature Range	Operating	Per Chart		°C
	Storage	-62 to +125		
Supply Voltage	±5.0 %	-5.2		Vdc
Output		ECL		
Start-up Time	(Max.)	15		ms
Logic Levels	High (Min.)	-1.15		Vdc
	Low (Max.)	-1.54		

Test Inspection	Product Level S Method Condition	Product Level B & C Method Condition
Internal Visual	See 4.4.1	See 4.4.1
Stabization bake (prior to seal) 1/	MIL-STD-883, method 1011, Condition C (+150°C) 48 hours min.	MIL-STD-883, method 1011, Condition C (+150°C) 48 hours min.
Thermal Shock	MIL-STD-883, method 1011, Condition A	N/A
Temperature Cycling	MIL-STD-883, method 1010 Condition B	MIL-STD-883, method 1010 Condition B
Constant Acceleration	MIL-STD-883, method 2001. Condition A, Y1 only (5000 g's)	MIL-STD-883, method 2001. Condition A, Y1 only (5000 g's)
Seal (Fine and Gross Leak) 2/	See 4.8.2.2.2	See 4.8.2.2.2
Particle Impact Noise Detection (PIND)	MIL-STD-883, method 2020 Condition B	N/A
Electrical Test:		
Input Current Power	4.8.5	N/A
Output Waveform	4.8.20	N/A
Output Voltage-Power	4.8.21	N/A
As Specified	3.1	3.1
Burn-In (Load)	+125C, nominal supply voltage and burn-in load, 240 hours minimum	+125C, nominal supply voltage and burn-in load, 160 hours minimum
Electrical Test:	Nominal and extreme supply voltages, specified load, +23°C and temperature ex- tremes, record all test parameters by serial number	Nominal supply voltages, specified load, +23°C and verify frequency at the temperature extremes
Input Current Power	4.8.5	4.8.5
Output Waveform	4.8.20	4.8.20
Output Voltage-Power	4.8.21	4.8.21
As Specified	3.1	3.1
Radiographic 3/	MIL-STD-883, method 2020	N/A

MIL-55310/25-Series A – 0.887 x 0.540 x 0.200 (in)

PACKAGE DIMENSIONS
Configuration A

PIN	CONNECTION
1-6	No Connect
7	Supply Voltage
8	Output
9-13	No Connect
14	Ground/Case



MIL-55310/25-Series B – 0.815 x 0.515 x 0.200 (in)

PACKAGE DIMENSIONS
Configuration B

PIN	CONNECTION
1	No Connect
7	Supply Voltage
8	Output
14	Ground/Case

