ISM91 Series

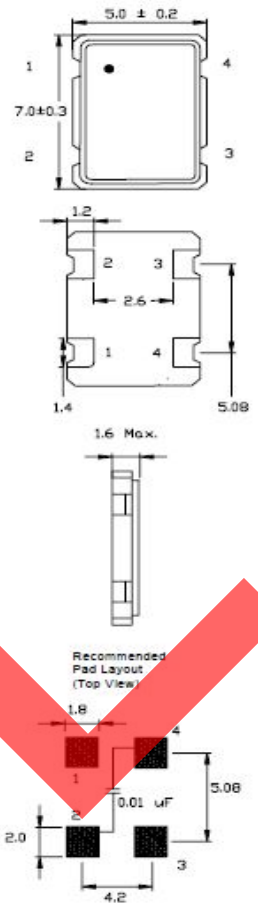
Product Features:

Low Jitter, Non-PLL Based Output
CMOS/TTL Compatible Logic Levels
Compatible with Leadfree Processing

Applications:

Fibre Channel
Server & Storage
Sonet /SDH
802.11 / Wifi
T1/E1.T3/E3
System Clock

Frequency	1 MHz to 170.000 MHz
Output Level HC-MOS TTL	 '0' = 0.1 Vcc Max., '1' = 0.9 Vcc Min. '0' = 0.4 VDC Max., '1' = 2.4 VDC Min.
Duty Cycle	Specify 50% ±10% or ±5% See Table in Part Number Guide
Rise / Fall Time	5 nS Max. @ Vcc = +3.3 VDC, 10 nS Max. @ Vcc = +5 VDC ***
Output Load	Fo < 50 MHz = 10 TTL, Fo > 50 MHz = 5 LSTTL See Table in Part Number Guide
Frequency Stability	See Frequency Stability Table (Includes room temperature tolerance and stability over operating temperature)
Start-up Time	10 mS Max.
Enable / Disable Time	100 nS Max.
Supply Voltage	See Input Voltage Table, tolerance ±5 %
Current	70 mA Max. ***
Operating	See Operating Temperature Table in Part Number Guide
Storage	-55° C to +125° C
Jitter: RMS(1sigma) 1 MHz-75 MHz 76 MHz-170 MHz	 5 pS RMS (1 sigma) Max. accumulated jitter (20K adjacent periods) 3 pS RMS (1 sigma) Max. accumulated jitter (20K adjacent periods)
Max Integrated 1 MHz-75 MHz 76 MHz-170 MHz	 1.5 pS RMS (1 sigma -12KHz to 20MHz) 1 pS RMS (1 sigma -12KHz to 20MHz)
Max Total Jitter 1 MHz-75 MHz 76 MHz-170 MHz	 50 pS p-p (100K adjacent periods) 30 pS p-p (100K adjacent periods)



Pin	Connections
Pin 1	Enable / Disable
Pin 2	Ground
Pin 3	Output
Pin 4	Vdd

Dimension Units: mm

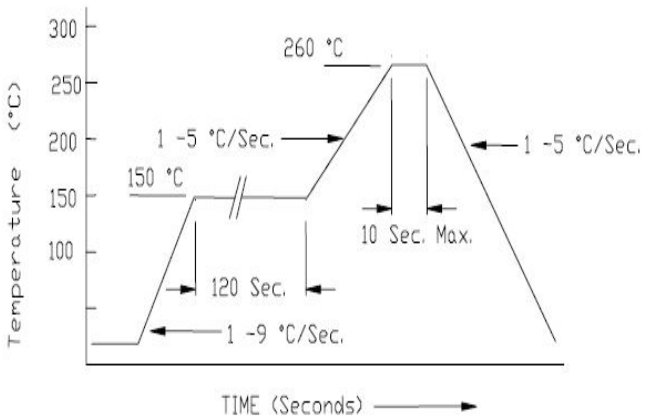
Part Number Guide **Sample Part Number: ISM91 - 3251BH - 20.000**

Package	Input Voltage	Operating Temperature	Symmetry (Duty Cycle)	Output	Stability (in ppm)	Enable / Disable	Frequency
ISM91 -	5 = 5.0 V	1 = 0° C to +70° C	5 = 45 / 55 Max.	1 = 10TTL / 15 pF HC-MOS	**D = ±15	H = Enable	- 20.000MHz
	3 = 3.3 V	6 = -10° C to +70° C	6 = 40 / 60 Max.	5 = 50 pF HC-MOS (<40 MHz)	**D = ±15	O = N/C	
	7 = 3.0 V	3 = -20° C to +70° C		6 = 30 pF	**F = ±20		
	2 = 2.7 V	4 = -30° C to +75° C			A = ±25		
	6 = 2.5 V	2 = -40° C to +85° C			B = ±50		
	1 = 1.8 V*				C = ±100		

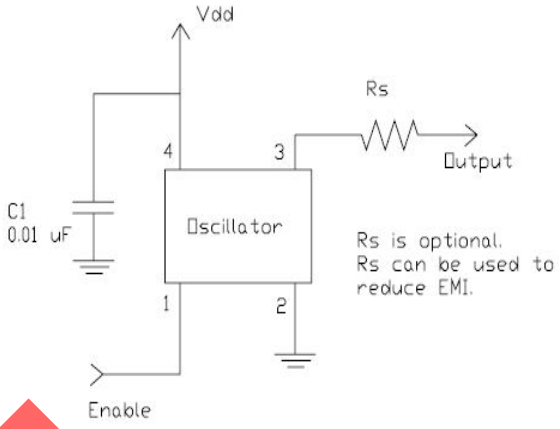
NOTE: A 0.01 µF bypass capacitor is recommended between Vcc (pin 4) and GND (pin 2) to minimize power supply noise.
* Not available at all frequencies. ** Not available for all temperature ranges. *** Frequency, supply, and load related parameters.

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Pb Free Solder Reflow Profile:



Typical Application:

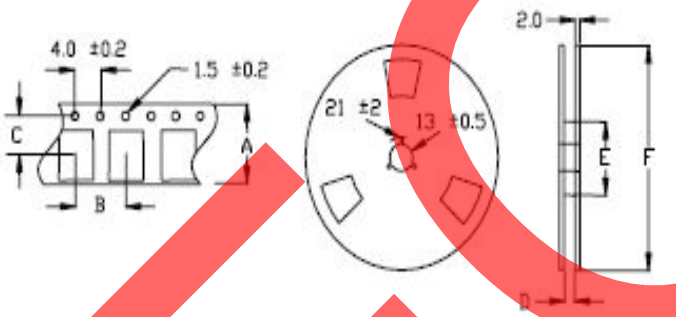


*Units are backward compatible with 240C reflow processes

Package Information:

MSL = N.A. (package does not contain plastic, storage life is unlimited under normal room conditions).
Termination = e4 (Au over Ni over W base metallization).

Tape and Reel Information:



Quantity per Reel	1000
A	16 ± 0.3
B	8 ± 0.2
C	7.5 ± 0.2
D	17.5 ± 1
E	50 / 60 / 80
F	180 / 250

EOL

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