3.2 mm x 5.0 mm Ceramic Package SMD Oscillator, LVPECL

ISM88 Series

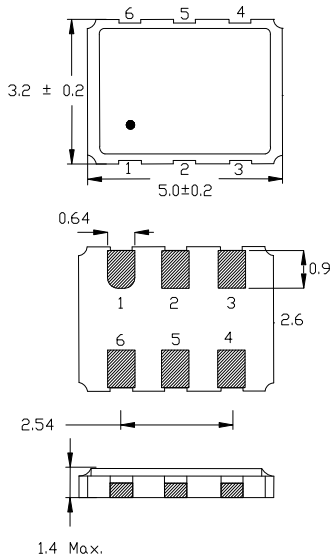
Product Features:

Surface Mount Package
Low Jitter
Reflow Compatible
Compatible with Leadfree Processing

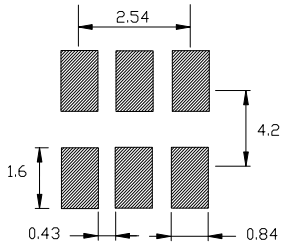
Applications:

Test Equipment
Server & Storage
Sonet /SDH

Frequency	25 MHz to 350.000 MHz
Output Level	V_{OH} = Vcc - 1.02 VDC Min. V_{OL} = Vcc - 1.62 VDC Max.
Duty Cycle	50% ±5%
Rise / Fall Time	1.0 nS Max.
Output Load	50 Ω to Vcc - 2.0 VDC
Frequency Stability	±25ppm
Enable Phase Delay	2 mS Max.
Disable Phase Delay	200 nS Max.
Supply Voltage	See Input Voltage Table, Tolerance ±5 %
Current	55 mA Typical, 90 mA Max.
Operating	0° C to +70° C
Storage	-40° C to +85° C
Integrated Jitter RMS	0.3 typ. (12 KHz to 20 MHz Band)



Recommended Pad Layout



Pin	Connection
1	Enable
2	N.C.
3	Vss
4	Output
5	Comp. Output
6	VDD

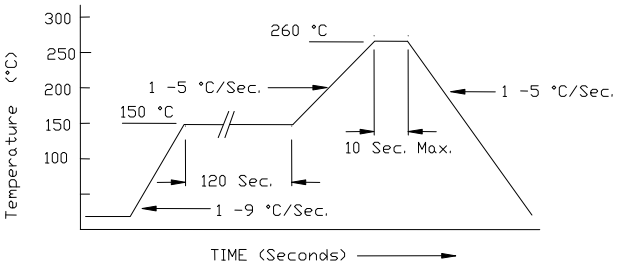
Dimension Units: mm

Part Number Guide **Sample Part Number: ISM88 – 3159AH - 156.250**

Package	Input Voltage	Operating Temperature	Symmetry (Duty Cycle)	Output	Stability (in ppm)	Enable / Disable	Frequency
ISM88 -	3 = 3.3 V	1 = 0° C to +70° C	5 = 45 / 55 Max.	9 = LVPECL	A = ±25*	H = Enable	- 156.250 MHz
	6 = 2.5 V	2 = -40° C to +85° C			Z = ±30		
					B = ±50		
					C = ±100		

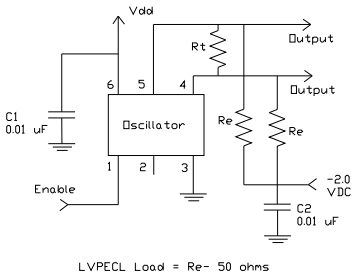
NOTE: A 0.01 µF bypass capacitor is recommended between Vcc (pin 6) and GND (pin 3) to minimize power supply noise. * Not available for all temperature ranges and frequencies.

Pb Free Solder Reflow Profile:



*Units are backward compatible with 240C reflow processes

Typical Application:

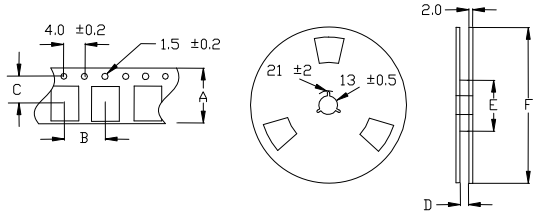


LVPECL Load = Re- 50 ohms

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 metalization).

Tape and Reel Information:



Quantity per Reel	1000
A	16 +/-.3
B	8 +/-.2
C	7.5 +/-.2
D	17.5 +/-1
E	50 / 60 / 80
F	180 / 250

Environmental Specifications

Thermal Shock	MIL-STD-883, Method 1011, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Mechanical Vibration	MIL-STD-883, Method 2007, Condition A
Resistance to Soldering Heat	J-STD-020C, Table 5-2 Pb-free devices (except 2 cycles max)
Hazardous Substance	Pb-Free / RoHS / Green Compliant
Solderability	JESD22-B102-D Method 2 (Preconditioning E)
Terminal Strength	MIL-STD-883, Method 2004, Test Condition D
Gross Leak	MIL-STD-883, Method 1014, Condition C
Fine Leak	MIL-STD-883, Method 1014, Condition A2, R1=2x10-8 atm cc/s
Solvent Resistance	MIL-STD-202, Method 215

Marking

Line 1: ILSI and Date Code (YWW)
Line 2: Frequency