2.5 x 2.0mm SMD

FEATURES

- Micro-miniature 2.5 x 2.0 x 0.95mm package
- Frequency Range 0.5MHz to 50.0MHz
- Supply current from 2.0mA
- Supply voltage range: 1.0, 1.2, 1.8, 2.5, 3.3 or 5.0 Volts
- Tristate function for power conservation

RoHS

DESCRIPTION

H22 oscillators are a general-purpose clock oscillator in a 3.2 x 2.5 x 1.0mm, micro-miniature package. The part is ideal for space-constrained applications. The oscillator is available with 1.0, 1.2, 1.8, 2.5, 3.3 or 5.0 Volts supply voltage.

APPLICATIONS

- CPU, Graphics, Multimedia, A/V clocks
- MPEG / DVD / HDTV clocks
- Laser engine pixel set / set-top clocks
- OC-3, OC-2. OC-48 and OC-192 clocks
- SONET / SDH / ATM clocks
- Fast Ethernet and Gigabit Ethernet clocks
- NTSC / PAL encoder/decoder clocks
- PLL / synthesizer clocks
- Fibre channel and ADSL clocks

SUPPLY VOLTAGE/CURRENT CONSUMPTION/RISE ANDFALL TIME

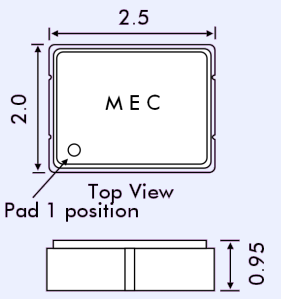
Supply Voltage	+1.0VDC±5% Code = '1'	+1.2VDC±5% Code = '12'	+1.8VDC±5% Code = '18'	+2.5VDC±5% Code = '25'	+3.3VDC±5% Code = '3'	+5.0VDC±10% Code = '5'
Available Frequency Range	0.5~40MHz	0.5~50MHz	1.0~50MHz	0.5~50MHz	0.5~50MHz	0.5~50MHz
Logic HIGH '1' (90%Vdd min.)	0.9V min.	0.9V.min	1.62V min.	2.25V min.	2.97V min.	4.5V min.
Logic LOW '0' (90% Vdd max.)	0.1V max	0.1V max.	0.18V max.	0.25V max.	0.33V max.	0.5V max.
Current Consumption	[0.5~32MHz] 2.0mA max.	[0.5~32MHz] 2.5mA max.	[1.0~1.5MHz] 5mA max.	[0.5~1.5MHz] 5mA max.	[0.5~1.5MHz] 5mA max.	[0.5~1.5MHz] 5mA max.
			[1.5~20MHz] 8mA max.	[1.5~20MHz] 8mA max.	[1.5~20MHz] 8mA max.	[1.5~20MHz] 10mA max.
	[32.1~40MHz] 3.0mA max.	[32.1~50MHz] 3.5mA max.	[20~50MHz] 15mA max.	[20~50MHz] 15mA max.	[20~50MHz] 15mA max.	[20~50MHz] 15mA max.
Tristate Function (Pad 1.)	Not available	Not available	Available	Available	Available	Available
Rise Time/Fall Time	6ns max.	6ns max.	7ns max.	7ns max.	10ns max.	10ns max.
	Measured between 10% ~ 90% of wave form (CL = 15pF)					

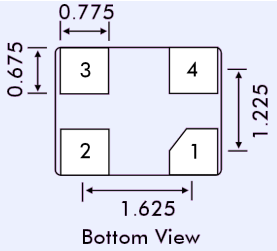
GENERAL SPECIFICATION

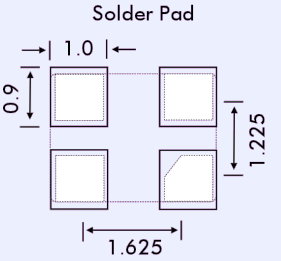
Frequency Range:	1.0MHz to 50.0MHz
Operating Temperature Range	
Commercial:	-10° to +70°C
Industrial:	-40° to +85°C
Frequency Stability*:	From ±25ppm over -40° to +85°C. *See Part Number Format table.*
Output Load:	15pF max., 30pF and 50pF available for parts with 3.3V or 5.0V supply
Duty Cycle:	50% ±10%standard, option of 50% ±5% (add 'S' to end of part number for ±5%)
Start-up Time	
0.5~32MHz:	5ms max.
32.0~50MHz:	10ms max.
Storage Temperature Range:	-50° to +100°C
Ageing:	±5ppm per year max.
Enable/Disable (Tristate):	Output is high impedance when "0" is applied to pad/pin 1. Enable time is 10ms max.
RoHS Status:	RoHS Compliant

** Temperature Stability from ±10ppm is available. If non-standard temperature stability required on part code add, eg., 'C10' for ±10ppm over commercial temperature range.*

OUTLINES & DIMENSIONS







Pad Connections

1 No Connection
1.0 and 1.2 V Supply
Enable/Disable
1.8, 2.5, 3.3 and 5.0V Supply
2 Ground
3 Output
4 Supply Voltage

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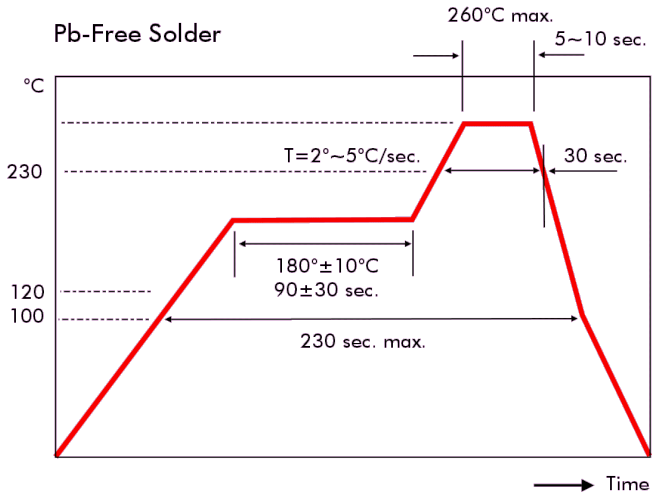
SOLDER PROFILE



PART NUMBER FORMAT

Example: 3H22DT-32.000-S

3 H22 D T - 32.000 - S

Supply Voltage:
- 5 = 5.0 Volts
- 3 = 3.3 Volts
- 25 = 2.5 Volts
- 18 = 1.8 Volts
- 12 = 1.2 Volts
- 1 = 1.0 Volts

Series Designation:
- H22

Stability and Temperature Range:
- A = ±25ppm over -10° to +70°C
- B = ±50ppm over -10° to +70°C
- C = ±100ppm over -10° to +70°C
- D = ±25ppm over -40° to +85°C
- E = ±50ppm over -40° to +85°C
- F = ±100ppm over -40° to +85°C

Tristate (Enable/Disable) Function

Nominal Frequency:
- In MHz

Duty Cycle/Symmetry:
- S = 50%±5% *(Optional)*

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