8 pin DIL

FEATURES

- Industry-standard 8 pin DIL metal package
- Frequency Range 20.0kHz to 160.0MHz
- Supply current from 10mA
- Supply voltage range, 1.8, 2.5, 3.3 or 5.0 Volts
- Tristate function for power conservation

RoHS

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

DESCRIPTION

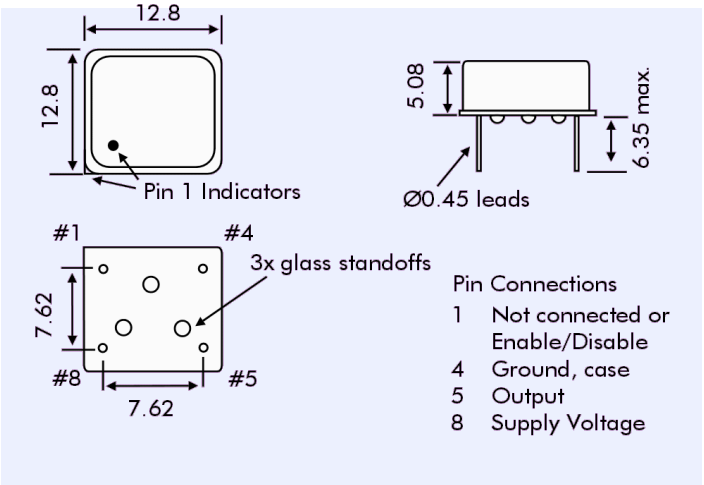
H8 oscillators are a general-purpose clock oscillator produced in a standard 'half-size' 8 pin DIL package. The part is ideal for applications where component compatibility is advantageous. The oscillator is available with 1.8, 2.5, 3.3 or 5.0 Volts supply voltage.

Model		H8 Oscillators - Supply Voltage-dependent Parameters			
Input Voltage:		Vdd = 1.8VDC±5%	Vdd = 2.5VDC±5%	Vdd = 3.3VDC±5%	Vdd = 5.0VDC±5%
Frequency Range:		1.8MHz to 60.0MHz	0.3MHz to 125.0MHz	20.0 kHz to 130.0MHz	20.0kHz to 160.0MHz
Output waveform		CMOS	CMOS	TTL/CMOS	TTL/CMOS
Output Logic High '1':	TTL			2.4V	2.4V
	CMOS	1.62V	2.25V	2.97V	4.5V
Output Logic Low '0':	TTL			0.4V	0.4V
	CMOS	0.18V	0.25V	0.33V	0.5V

GENERAL SPECIFICATION

Frequency Range:	0.3125MHz to 125.0MHz
Operating Temperature Range	
Commercial:	-10° to +70°C
Industrial:	-40° to +85°C
Frequency Stability:	*See Part Number Format table*
Output Load	
TTL:	2 ~10 LSTTL gates
CMOS:	15pF typical; 30pF load for frequencies < 70MHz; 50pF load available as option.
Rise/Fall Times	
TTL:	10ns max. Measured between 0.4VDC ~ 2.4VDC (RL = 390Ω, CL = 15pF)
CMOS:	10ns max., measured between 10% ~ 90% wave form (CL = 15pF)
Duty Cycle	
TTL:	40/60% measured at +1.4V
CMOS:	40/60% measured at 50% of waveform. (50%±5% is available as an option)
Start-up Time:	10ms max.
Current Consumption:	10~45mA (frequency dependent)
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. Disable time is 150ns max.
RoHS Status:	RoHS Compliant

OUTLINES & DIMENSIONS



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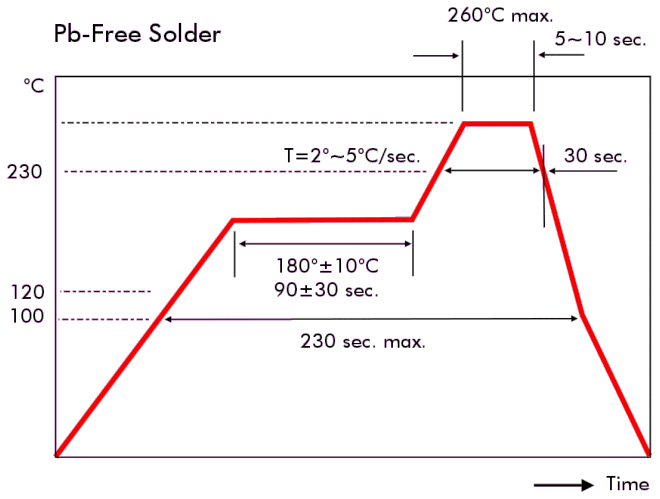
SOLDER PROFILE



PART NUMBER FORMAT

Example 3H14-DT-32.000-S: 3 H8 D T - 32.000 - S

Supply Voltage:
- 5 = 5.0 Volts
- 3 = 3.33 Volts
- 25 = 2.5 Volts
- 18 = 1.8 Volts

Series Designation:
- H8 = 8 pin DIL

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%
- *(Omit if not required)*