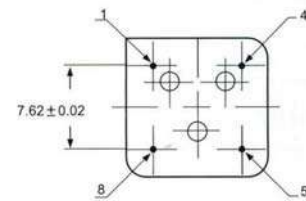
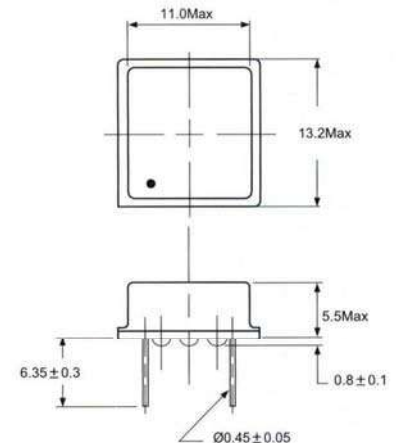




Quartz Crystal Oscillators ---Type: ZPB-5H

**SPECIFICATIONS:**

Frequency Range	400.000KHZ~160.000MHZ		
Frequency Tolerance@25°C	±100ppm (Standard)		
Frequency Stability Over Temp.	±100ppm (Standard)		
Operating Temperature	-10°C~+60°C (Standard)		
Storage Temperature	-55°C~+125°C		
Supply Voltage	5.0±10% VDC, 3.3±10% VDC		
Output Load	TTL	TTL, CMOS	
Supply Current (max):			
400.000KHZ≤F<24.999MHZ	20mA	20mA	
25.000MHZ≤F<100.000MHZ	40mA	40mA	
100.000MHZ≤F≤160.000MHZ	80mA	80mA	
Rise/Fall Time (max):			
400.000KHZ≤F<24.999MHZ	10 ns	10 ns	
25.000MHZ≤F<100.000MHZ	5 ns	10ns	
100.000MHZ≤F≤160.000MHZ	4 ns	5ns	
Output Level	Logic "1" :	2.4 min	4.5 min
	Logic "0" :	0.4 max	0.5 max
Start-up Time(Max)	10~35 ms	10ms	



PIN	FUNCTION
# 1	NC or Tri-state E/D
# 4	GROUND
# 5	OUTPUT
# 8	VDD

**Output Load and Symmetry**

	5TTL	10TTL	TTL/ CMOS	CMOS 15pF	CMOS 50pF
50±5%	*A	*D	H	J	F
50±10%	B	L	R	K	G

\*Not available, if frequency>70MHz and V<sub>DD</sub>=5.0V

**Temperature Range and Stability**

	±15ppm	±20ppm	±25ppm	±30ppm	±50ppm	±100ppm
A0= 0~+50	○	○	○	○	○	○
A1= -10~+60	○	○	○	○	○	○
A2=-20~+70	○	○	○	○	○	○
A3= -30~+75	—	—	○	○	○	○
A4=-40~+85	—	—	○	○	○	○
A5=-55~+85	—	—	—	—	○	○
A6=-55~+105	—	—	—	—	—	○

**ORDRE OPTION:**

Type	Frequency	Supply Voltage (V)	Freq. Tolerance (ppm)	Freq. Stability (ppm)	Operating Temp.(°C)	Output Load & Symmetry	Tri-state Function
ZPB-5H	400KHz~100MHz	V5 = 5.0±10% VDC V3 = 3.3±10% VDC	±15	±15	A0= 0~+50	A, D, H, J, F B, L, R, K, G	E = Tri-state
			±20	±20	A1=-10~+60		
			±25	±25	A2=-20~+70		
	±30	±30	A3= -30~+75				
	±50	±50	A4= -40~+85				
	±100	±100	A5=-55~+85 A6=-55~+105				

i.e. : ZPB-5H- 400.000K- V5 -30/50-A1 -A-E