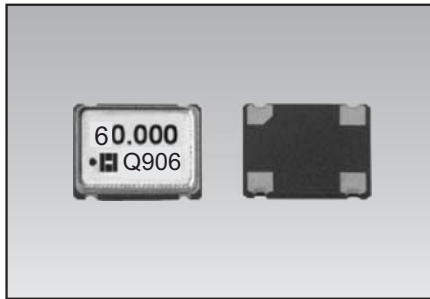




SMD CRYSTAL OSCILLATOR



• HXO-Q Series



FEATURES

- 2.5X2.0X0.9mm Miniature Package
- Frequency range of 1MHz to 200MHz
- Output enable(OE) or standby(\overline{ST})
- 3.3V,2.5V and 1.8V option
- Short mass production lead time by PLL technology

Electrical Specifications

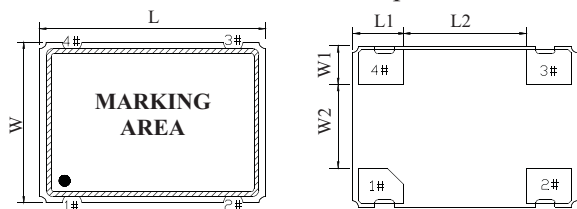
Parameter	Condition	HXO-Q36/56/SC/NC	HXO-Q39/59/SD/ND	HXO-Q37/57/SE/NE
Frequency Range	F _O	1MHz~200MHz	1MHz~166MHz	1MHz~133MHz
Frequency Stability*	All Condition*	±25ppm, ±50ppm, ±100ppm		
Operating Temperature Range	T _{OPR}	-20°C~+70°C (-40°C~+85°C option)		
Storage Temperature Range	T _{STG}	-55°C~+125°C		
Power supply Voltage	V _{DD}	3.3V+/-10%	2.5V+/-10%	1.8V+/-10%
Supply Current	I _{DD}	30mA Max	25mA Max	20mA Max
Output Disable Current	I _{DIS}	OE=GND	8mA Max	
Standby Current	I _{STD}	\overline{ST} =GND	10µA Max	
Output Symmetry	Sym	At 1/2V _{DD}	40/60%(45/55% Option)	
Rise time	T _r	10%V _{DD} ~90%V _{DD}	8nS Max	
Fall Time	T _f	90%V _{DD} ~10%V _{DD}	8nS Max	
Output Voltage	V _{OH} V _{OL}		90%V _{DD} Min 10%V _{DD} Max	
Output Load HCMOS Load	CL		15pF Max	
Start Time	T _s		10mS Max	
Peak to peak jitter		10,000 sample measured	70pS Typ.	
Aging(First Year)			±2ppm Max	
Pin 1,tri-state function			Pin 1=H or open....Output active at pin 3 Pin 1=L.....high impedance at pin 3	
Packing Unit			1000pcs/reel	

*Include: 25°C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration

**Please contact us for inquiries regarding other frequency

Mechanical Dimensions(mm)

Top View



Recommended Solder Pattern

Offset:0.1mm

Product	L	W	H(Max.)	L1	L2	L3	L4	W1	W2	W3	W4
Q3	7.00	5.00	1.50	0.60	3.80	1.80	3.60	1.20	2.60	1.60	2.00
Q5	5.00	3.20	1.30	1.83	1.34	1.40	1.14	1.00	1.20	1.20	1.00
QS	3.20	2.50	1.20	1.00	1.20	1.20	1.00	0.75	1.00	0.95	0.80
QN	2.50	2.00	0.90	0.80	0.90	1.00	0.70	0.70	0.60	0.90	0.40

Pin	Connection
#1	Tri-State
#2	GND
#3	Output
#4	V _{DD}

***Note: 0.01uF bypass capacitor should be placed between V_{DD}(Pin4) and GND(Pin2) to Minimize power supply line noise

TAIWAN:

HOSONIC ELECTRONIC CO., LTD.
23-1 LANE 84. CHUN YING ST. SHULIN CHEN.
TAIPEI 23804. TAIWAN
WEB SITE:<http://www.hosonic.com>

☎ : 886-2-86875200
☎ : 886-2-26816456
✉ : sharon@hosonic.com.tw

CHINA:

HANGZHOU HOSONIC ELECTRONIC CO., LTD.
NO.242 LIANGBO ROAD. LIANGZHU TOWN.
YUHANG DISTRICT, HANGZHOU, ZHEJIANG, CHINA
WEB SITE:<http://www.hosonic.com.cn>

☎ : 86-571-88778189
☎ : 86-571-88778857
✉ : mike@hosonic.com

Specifications are subject to change without notice