

SMD CMOS output
5.0 x 3.2 x 1.2 mm

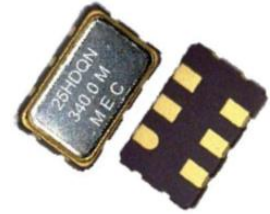
1.0 pS phase jitter (typical)
10 ~ 245 MHz



RoHS Compliance

Features

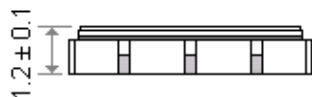
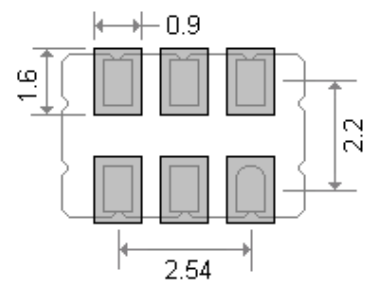
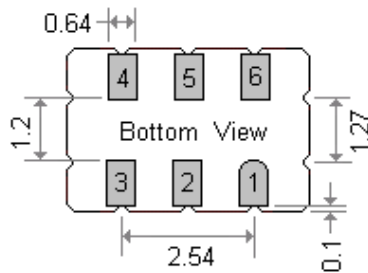
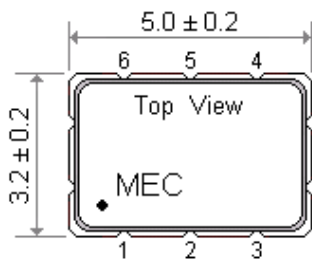
The HTQF, HPQF and HDQF Series are members of Mercury's Q-Family Quick-Turn crystal oscillators that can be delivered within days. With low current consumption (54 mA for LVPECL 622.080 MHz at 3.3V) and an integrated phase jitter performance of 1.0 pS RMS, they have gained its precision frequency control market position by providing engineers with next-day samples for prototypes and low cost, fast delivery for volume production. The perfect solution to replace traditional XO's & VCXO's that use a more expensive, high-frequency, fundamental crystal and a noisy PLL multiplier circuit



General Specifications

Parameters			Electrical Spec.							
Input Voltage (V _{DD})			3.3 V ± 5 %							
Frequency Range			10 ~ 245 MHz							
Output Wave Form			CMOS output							
Output Logic High " 1 "			90 % V _{DD}							
Output Logic Low " 0 "			10 % V _{DD}							
Output Load			15 pF typical							
Rise Time (Tr) / Fall Time (Tf)			1.5 n sec. (typical) ; 3.0 n sec. (max.) [10% ↔ 90% waveform]							
Duty Cycle			50% ± 5%							
Start - Up Time (Ts)			10 m sec. (typical)							
Storage Temperature			- 50°C to 100°C							
Aging			± 2 ppm per year (max.)							
Current with Output			16 mA							
Current Consumption (V _{DD} = + 2.5V)			10 MHz	50 MHz	100 MHz	150 MHz	200 MHz	250 MHz		
All values are typical and over the operating temperatures.			17 mA	20 mA	24 mA	28 mA	33 mA	37 mA		
Frequency Stability ⁽¹⁾ Codes	Frequency Stability over Operating Temperature Range	± 25 ppm	± 50 ppm	± 100 ppm	If non-standard , please enter the desired stability after the " C " or " I " represents . For example : " C20 " ± 20 ppm over -10°C to +70°C ; " I20 " ± 20 ppm over -40°C to +85°C					
	Commercial (-10°C to +70°C)	A	B	C						
	Industrial (-40°C to +85°C)	D	E	F						
SSB Phase Noise [dBc / Hz (typical)]	Offset	77.76 MHz	122.88 MHz	125 MHz	156.25 MHz	212.5 MHz	491.52 MHz	622.08 MHz	1 GHz	1.25 GHz
	10 Hz	-57	-68	-63	-55	-62	-61	-48	-52	-42
	100 Hz	-94	-99	-94	-85	-93	-86	-85	-82	-81
	1 KHz	-114	-113	-113	-109	-105	-100	-101	-93	-93
	10 KHz	-123	-119	-118	-116	-113	-105	-102	-97	-96
	100 KHz	-124	-120	-119	-118	-115	-105	-103	-97	-97
	1 MHz	-144	-140	-137	-139	-135	-126	-124	-116	-119
10 MHz	-152	-148	-146	-146	-143	-137	-133	-127	-129	
Phase Jitter (12KHz ~ 20 MHz, RMS) unit : pS.		0.9	0.8	1.1	0.9	1.0	1.1	1.2	1.5	1.1

General Specifications (Unit : mm)



Pad 1	High Enable	Pad 4	Output
Pad 2	No Connection	Pad 5	No Connection
Pad 3	Ground	Pad 6	Supply Voltage