SMD Crystal Oscillators

● D1SX Series 2.0×1.6×0.8mm



Features
- Miniature SMD package
- Low power standby mode
- CMOS Output

Applications
- High quality audio
- Smartphone, Tablet, Notebook
- Server
- Wireless module

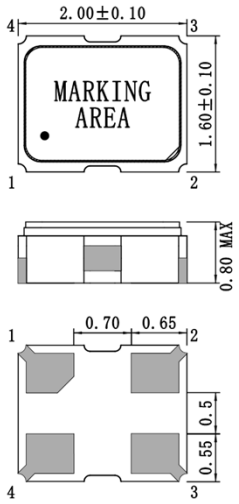
Electrical Specifications

Item	Symbol	Condition	D1SX			
Frequency Range	f_{nom}	-	1 ~ 80MHz			
Output Type	-	-	CMOS			
Output Load	-	-	15pF, or specify			
Frequency Stability*	f_{stb}	All Condition*	±25ppm, or specify			
Operating Temperature Range	T_{opr}	-	-20 ~ +70℃, or specify			
Storage Temperature Range	T_{stg}	-	-40 ~ +85℃			
Power Supply Voltage	V_{DD}	-	3.3V±10%	2.8V±10%	1.8V±10%	1.2V±10%
Supply Current (At 15pF Load)	I_{DD}	1.0 ~ 19.9MHz	5mA max.	4mA max.	3mA max.	2mA max.
		20.0 ~ 49.9MHz	8mA max.	7mA max.	5mA max.	3mA max.
		50.0 ~ 80.0MHz	12mA max.	10mA max.	8mA max.	-
Rise Time / Fall Time	T_r/T_f	10%V_{DD} ~ 90%V_{DD}	4ns max.	5ns max.	6ns max.	10ns max.
Output Voltage	V_{OH}	-	90%V_{DD} min.			
	V_{OL}	-	10%V_{DD} max.			
Output Symmetry	SYM	At 1/2 V_{DD}	45% ~ 55%			
Stand-by Current	Ist	-	10μA max.			
Start-up time	-	-	5ms max.			
Aging (At 25℃)	-	-	±3 ppm/year max.			
Pin 1, Enable/Disable function	E/D	-	Pin 1="High" or "open"……output active at pin 3 Pin 1="Low"……high impedance at pin 3			

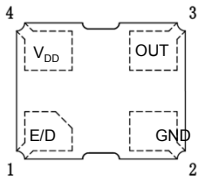
* Include : 25℃ tolerance, operating temperature range, input voltage change, aging, load change.

Mechanical Dimensions

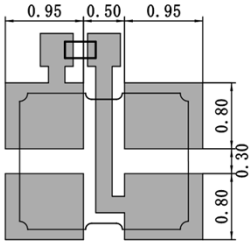
Unit: (mm)



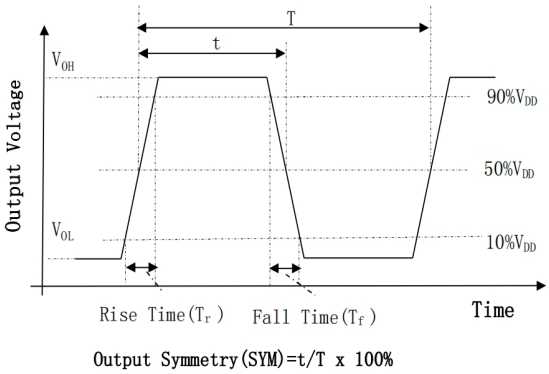
Pin Connection
(Top View)



Recommended PAD Layout



Output Waveform



Output Symmetry(SYM)=t/T x 100%

** 0.01uF bypass capacitor should be placed between V_{DD} (pin 4) and GND (pin 2) to minimize power supply line noise.