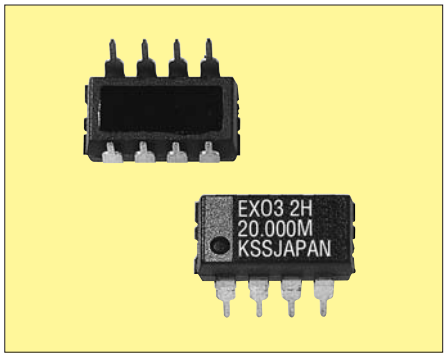
Clock Crystal Oscillators CMOS Crystal Oscillators
KCEXO3 (EXO-3)

KYOCERA

CMOS/ 5.0V



Pb Free RoHS Compliant

Features

- Since it has a frequency deviding function, it is able to obtain a frequency devision of 1/ 2–1/ 2^8 (1/ 256)
- The symmetry of frequency devided output is within 50±2%
- The oscillation start time has the fast starting characteristic of being 1.5m sec. or less
- The pin arrangement is DIP 8PIN
- Supply voltage V_{CC}=5.0V

Applications

- Amusement

How to Order

KCEXO3- 20.0000 C 5 1 B 00
① ② ③ ④ ⑤ ⑥ ⑦

① Type
② Output Frequency
③ Output Type (CMOS)
④ Supply Voltage (5.0V)
⑤ Frequency Tolerance
⑥ Symmetry/ Enable Function (40/ 60%, Stand-by)
⑦ Customer Special Model Suffix (STD Specification is “00”)

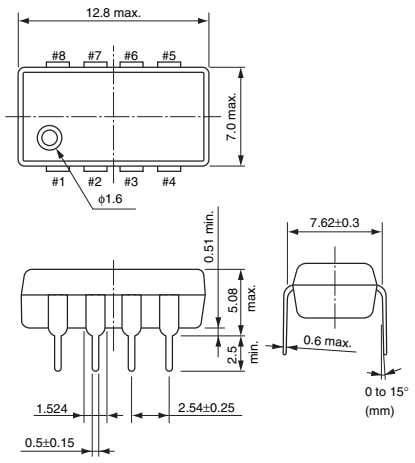
Specifications

Item	Symbol	Conditions	Specifications		Units
			Min.	Max.	
Output Frequency Range	F_O		11.0592	24.576	MHz
Frequency Tolerance (Overall)	$F_{\_tol}$		–100	+100	$\times10^{-6}$
Storage Temperature Range	$T_{\_stg}$		–40	+85	°C
Operating Temperature Range	$T_{\_use}$		–10	+70	°C
Supply Voltage	V_{CC}		4.5	5.5	V
Current Consumption	I_{CC}		—	20	mA
Symmetry	SYM	@50% V_{CC}	40	60	%
Rise/ Fall Time	tr/ tf		—	15	nS
Low Level Output Voltage	V_{OL}		—	10% V_{CC}	V
High Level Output Voltage	V_{OH}		90% V_{CC}	—	V
Output Load	CL		—	50	pF
Start-up Time	$t_{\_str}$		—	1.5	mS

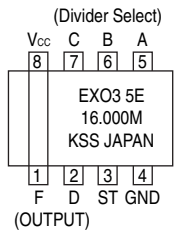
Note: All electrical characteristics are defined at the maximum load and operating temperature range.
Please contact us for inquiries about operating temperature range, available frequencies and other conditions.

Dimensions

(Unit: mm)



Settings of the frequency devision output



1. F — Outputs the original frequency (fo) of the internal quartz crystal.
2. D — Outputs the frequency of programmed dividing ratio (fo/ 2^n).
3. ST — Possible to be oscillated when set to HIGH level and stopped in oscillation when set to LOW level. when this function is not needed, be sure to set the STANDBY pin to the HIGH level.
4. GND
5. A
6. B
7. C — Used to program the dividing ratio for the original frequency.
8. V_{CC} — Supply voltage

Pin connection

Input				Output	
Select			ST	F Original Frequency	D Divided Wave form
C	B	A			
L	L	L	H	fo clock	fo・1/ 2 clock
L	L	H	H	fo clock	fo・1/ 2^2 clock
L	H	L	H	fo clock	fo・1/ 2^3 clock
L	H	H	H	fo clock	fo・1/ 2^4 clock
H	L	L	H	fo clock	fo・1/ 2^5 clock
H	L	H	H	fo clock	fo・1/ 2^6 clock
H	H	L	H	fo clock	fo・1/ 2^7 clock
H	H	H	H	fo clock	fo・1/ 2^8 clock
—	—	—	L	L	L