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

KYOCERA

CMOS / 5.0V

EXO3 2H
20.000M
KSSJAPAN

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 $50\pm2\%$
- The oscillation start time has the fast starting characteristic of being 1.5msec.or less
- The pin arrangement is DIP 8PIN
- Supply voltage V_{DD}=5.0V

Applications

- Amusement

How to Order

KCEXO3- 20.0000 C 5 1 B 00

① ② ③④⑤⑥ ⑦

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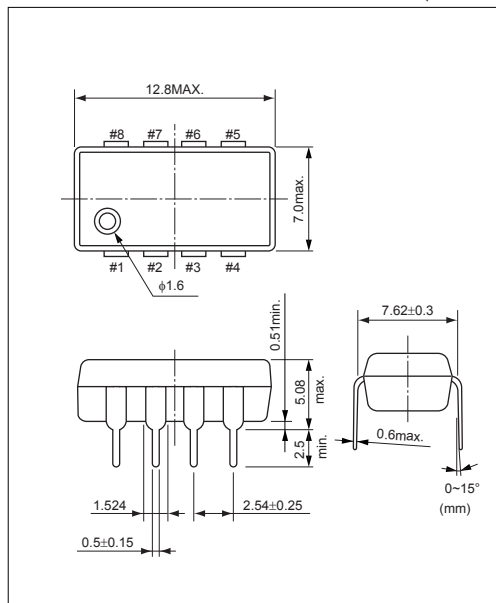⑦Customer Special Model Suffix
  (STD Specification is "00")

Specifications

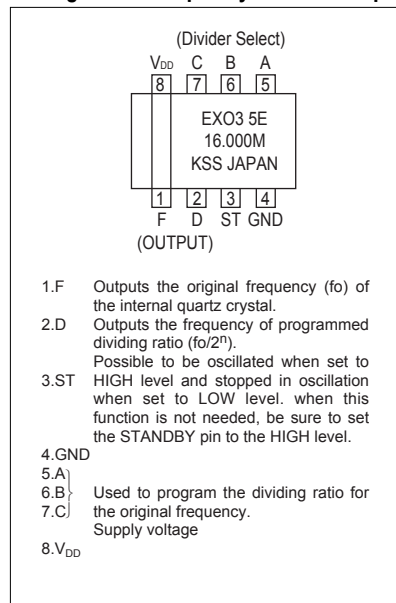| Item	Symbol	Conditions	Specifications Min.	Specifications Max.	Units
Output Frequency Range	F_0		11.0592	24.576	MHz
Frequency Tolerance (Overall)	F_{tol}		−100	+100	$\times 10^{-6}$
Storage Temperature Range	T_{stg}		−40	+85	°C
Operating Temperature Range	T_{use}		−10	+70	°C
Supply Voltage	V_{DD}		4.5	5.5	V
Current Consumption	I_{DD}		−	20	mA
Symmetry	SYM	@50% V_{DD}	40	60	%
Rise / Fall Time	Tr/Tf		−	15	nS
Output Voltage-"L"	V_{OL}		−	10% V_{DD}	V
Output Voltage-"H"	V_{OH}		90% V_{DD}	−	V
Output Load	CL		−	50	pF
Start-up Time	ST		−	1.5	mS

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

Dimensions

(Unit : mm)

12.8MAX.
#8 #7 #6 #5
7.0max.
#1 #2 #3 #4
φ1.6
0.51min.
5.08 max.
2.5 min.
7.62±0.3
0.6max.
1.524
2.54±0.25
0.5±0.15
0~15°
(mm)

Settings of the frequency devision output

(Divider Select)

V_{DD} C B A
8 7 6 5

EXO3 5E
16.000M
KSS JAPAN

1 2 3 4
F D ST GND
(OUTPUT)

1.F   Outputs the original frequency (fo) of the internal quartz crystal.
2.D   Outputs the frequency of programmed dividing ratio ($fo/2^n$).
       Possible to be oscillated when set to HIGH level.
3.ST   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   Used to program the dividing ratio for the original frequency.
7.C   Supply voltage
8.V_{DD}

Pin connection

Input Select C	Input B	Input A	ST	Output F Original Frequency	Output D Divided Wave form
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