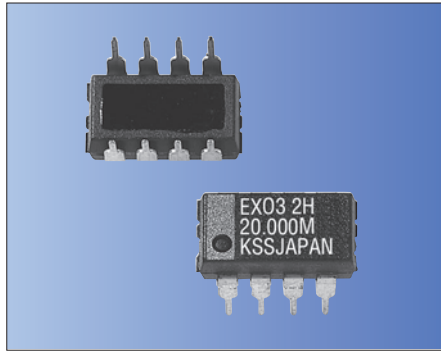


This product is NOT recommended for new designs.



Pb Free

RoHS Compliant

Features

- Since it has a frequency dividing function, it is able to obtain a frequency division of $1/2$ to $1/2^8$ ($1/256$)
- The symmetry of frequency divided output is within $50 \pm 2\%$
- 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
- Digital Electronics

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")

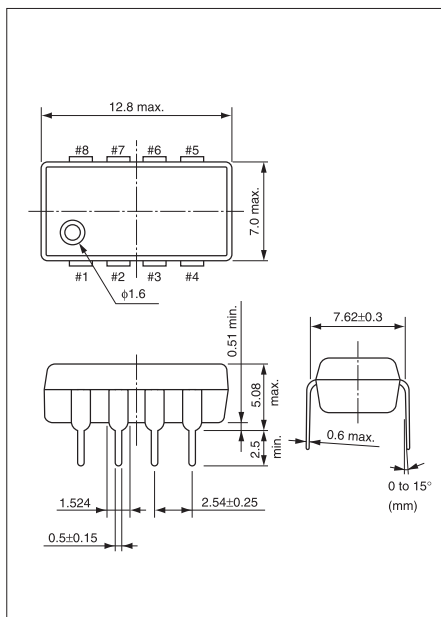
Specifications

Item	Symbol	Conditions	Specifications		Units
			Min.	Max.	
Output Frequency Range	f_o		11.0592	24.576	MHz
Frequency Tolerance (Overall)	f_{tol}		-100	+100	$\times 10^{-6}$
Storage Temperature Range	T_{stg}		-40	+85	$^{\circ}C$
Operating Temperature Range	T_{use}		-10	+70	$^{\circ}C$
Supply Voltage	V_{CC}		4.5	5.5	V
Current Consumption	I_{CC}		—	20	mA
Stand-by Current	I_{std}		—	10	μA
Symmetry	SYM	@50% V_{CC}	40	60	%
Rise/ Fall Time	t_r / t_f		—	15	nS
Low Level Output Voltage	V_{OL}		—	10% V_{CC}	V
High Level Output Voltage	V_{OH}		90% V_{CC}	—	V
CMOS Load	L_{CMOS}		—	50	pF
Disable Time	t_{dis}		—	100	nS
Enable Time	t_{ena}		—	5	mS
Start-up Time	t_{str}		—	1.5	mS

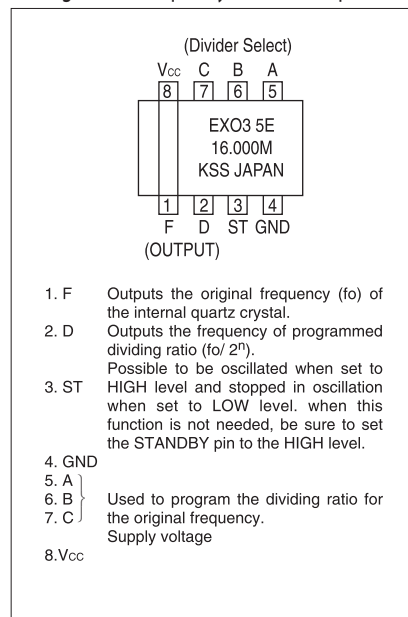
Note: All electrical characteristics are defined at the maximum load and operating temperature range.
 Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

Dimensions

(Unit: mm)



Settings of the frequency division output



Pin connection

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

A capacitor of value 0.01 μF between V_{CC} and GND is recommended.