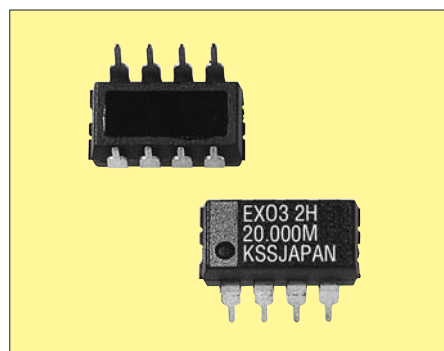


CMOS/ 5.0V



Pb Free

RoHS Compliant

Features

- Since it has a frequency dividing function, it is able to obtain a frequency division of $1/2 - 1/2^8$ ($1/256$)
- 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

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")

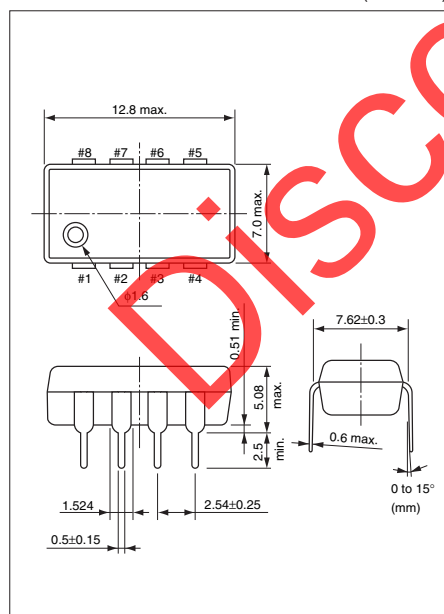
Specifications

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
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
Output Load	C_L		—	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 division output

(Divider Select)				
V_{CC}	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 (f_o) of the internal quartz crystal.			
2. D	Outputs the frequency of programmed dividing ratio ($f_o/2^n$). 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.			
3. ST				
4. GND				
5. A	Used to program the dividing ratio for the original frequency. Supply voltage			
6. B				
7. C				
8. V_{CC}				

Pin connection

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