

Crystal Oscillators

水晶発振器

Oven-Controlled Crystal Oscillators (OCXO)

恒温槽付水晶発振器

SOC

Series
シリーズ

Features 特徴

- Compact (Compatible with 14-pin DIP) 小型 (DIP 14ピンコンパチブル)
- Excellent phase noise characteristics 優れた位相雑音特性
- Excellent aging characteristics 優れたエージング特性
- RoHS Compliant RoHS 対応品



Specifications 仕様

Parameters 特性項目	Conditions 条件	SOC3V308EC	SOC5V308EC
Frequency Range 周波数範囲		10 ~ 40MHz	
Supply Voltage 供給電圧		3.3V ± 5%	5.0V ± 5%
Input Current 消費電流 (max)	at start	800mA	500mA
	when stable (+25°C)	300mA	200mA
Output Level 出力レベル	"0" Level (max)	HCMOS	0.1V _{dd} (15pF LOAD)
	"1" Level (min)		
Symmetry シンメトリー (max)	At 0.5V _{dd} 0.5V _{dd} にて	40/60%	
Warm-up Characteristics 立上り特性 (max)	+25°C 5 min. after power is on Based on freq. after 30 days operation	± 500ppb	
Freq./Temp Characteristics 周波数温度特性 (max)	0°C ~ 70°C	± 300ppb	
freq./Volt. Characteristics 電源変動特性 (max)	V _{dd} ± 5%	± 50ppb	
Aging エージング (max)	Based on freq. after 30 days operation	± 10ppb/day ± 500ppb/year	
Frequency Pullability 周波数可変幅 (min)	Control Voltage 制御電圧	± 2ppm	± 3ppm
		(V _c =1.65 ± 1.5V)	(V _c =2.5 ± 2.0V)

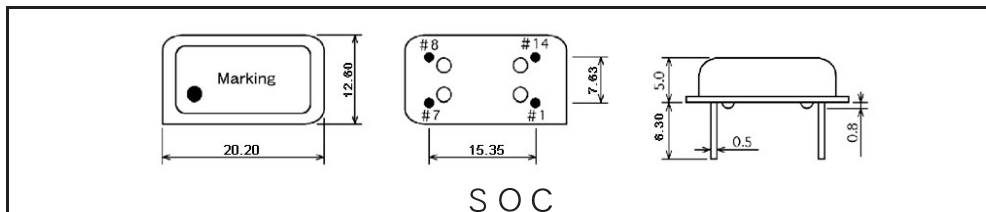
Reference Value 参考値

Phase noise 位相雑音 (at 10MHz)	
Offset Frequency	dBc/Hz (max)
10Hz	-100
100Hz	-120
1kHz	-130
10kHz	-140

Pin Connections ピン接続

SOC Series シリーズ	
#1	V _{cont}
#7	GND
#8	Output
#14	V _{dd}

Case Dimensions ケース寸法



Crystal Oscillators/OCXO

SOC-TYPE PARTS MODELING

SOC Series

PARTS MODELING

Model: **SOC** 3V 308 E C - 10.000MHZ
 ① ② ③ ④ ⑤ ⑥ ⑦

サイズによって対応可能な仕様や周波数は違います。詳細はKDK営業まで問い合わせ下さい。
 Frequency and Spec depending on package size, please ask KDK sales.

- ① シリーズ名 SERIES
 SOC シリーズ KDK各種 OCXO/VC-OCXOシリーズ
- ② 供給電圧 VOLTAGE
3V = 3.3V Vcont Vcont有り VC-OCXO
5V = 5.0V Vcont Vcont有り VC-OCXO
2V = 12.0V Vcont Vcont有り VC-OCXO
3N = 3.3V NC Vcont無し OCXO
5N = 5.0V NC Vcont無し OCXO
2N = 12.0V NC Vcont無し OCXO
 (OTH: Please ask us for other voltage option.)
- ③ 温度特性 FREQUENCY STABILITY
039 = ±3ppb
009 = ±5ppb
109 = ±10ppb
259 = ±25ppb
509 = ±50ppb
108 = ±100ppb
208 = ±200ppb
308 = ±300ppb
508 = ±500ppb
708 = ±700ppb
107 = ±1000ppb(±1ppm)
207 = ±2000ppb(±2ppm)
 (OTH: Please ask us for other stability requiremnet.)
- ④ 温度範囲 TEMPERATURE RANGE
A = -10~70°C
B = -20~70°C
D = 0~60°C
E = 0~70°C
F = -40~85°C
G = -10~60°C
 (OTH: Please ask us for other operating temperatures.)
- ⑤ 出力 OUTPUT
C = C-MOS
S = SINE
- ⑥ パッケージタイプ PACKAGE TYPE
- = 14PIN STD PACKAGE
-X1 = 14PIN Hight Package
-X2 = 21x21mm DIP Package
-X3 = 36x27mm DIP Package
-X4 = 14x9mm SMD Package
 (OTH: Please ask us for other package size.)
- ⑦ 周波数 FREQUENCY
 10.000MHZ~40.000MHZ
 周波数範囲は仕様によって替わります。詳しくは、KDK営業まで問合せ下さい。
 Frequency range depends on output type. So please contact KDK sales.
 Higher/Lower frequency can be developed by customer requirements.

EX. 代表的な型名・表示例

SOC3V308FC 10.000MHZ 10MHZ 3V VC-OCXO ±300ppb/-40~85°C
 SOC3V009EC-X3 24.000MHZ 24MHZ 3V VC-OCXO ±5ppb/-20~70°C