



Pb Free

RoHS Compliant

Features

- Ultra-miniature SMD type (2.5x2.0x0.9mm)
- AFC function available
- Frequency stability : $\pm 2.0 \times 10^{-6} / -30$ to $+85^\circ\text{C}$
- 2.3 to 3.5V drive available
- Reflow compatible

Applications

- 3G (CDMA, W-CDMA), GPRS, GSM

How to Order

KT2520Y 26000 D C W 28 T AA
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① Series
- ② Output Frequency
- ③ Frequency Tolerance

B	$\pm 1.0 \times 10^{-6}$
C	$\pm 1.5 \times 10^{-6}$
D	$\pm 2.0 \times 10^{-6}$
- ④ Lower Operating Temp.

C	-30°C
E	-20°C
G	-10°C
- ⑤ Upper Operating Temp.

W	$+85^\circ\text{C}$
V	$+80^\circ\text{C}$
U	$+75^\circ\text{C}$
- ⑥ Supply Voltage

28	2.8V	30	3.0V
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- ⑦ Voltage Control Range

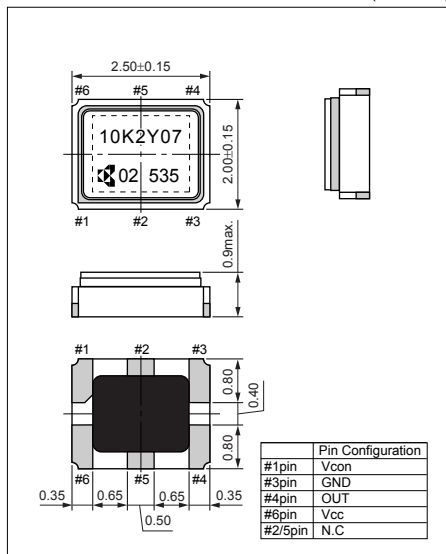
TCXO	T
VCTCXO	Customer Spec
- ⑧ Option Code

Specifications

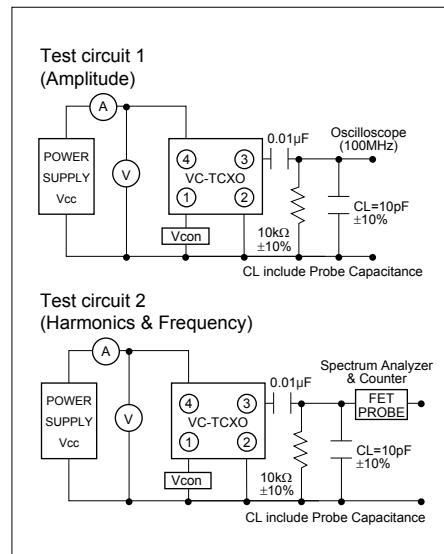
Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency	F _o		12.6	40	MHz
Frequency Tolerance	F _{tol}	vs Temperature	-2	+2	$\times 10^{-6}$
		vs Load	-0.2	+0.2	
		vs Voltage	-0.3	+0.3	
Frequency Aging	F _{aging}	Per Year	-1	+1	$\times 10^{-6}$
Storage Temperature Range	T _{stg}		-40	+85	$^\circ\text{C}$
Operating Temperature Range	T _{use}		-30	+85	$^\circ\text{C}$
Voltage Control Range	$\Delta f/V$	Positive	± 8	± 15	$\times 10^{-6}$
Supply Voltage	V _{cc}		2.3	3.5	V
Output Level	V _{pp}	10k ohm // 10pF	0.8	—	V _{p-p}
Current Consumption	I _{DD}		—	2	mA
Symmetry	SYM	@50% V _{DD}	40	60	%
Harmonics	—		—	-5	dBc

Dimensions

(Unit : mm)

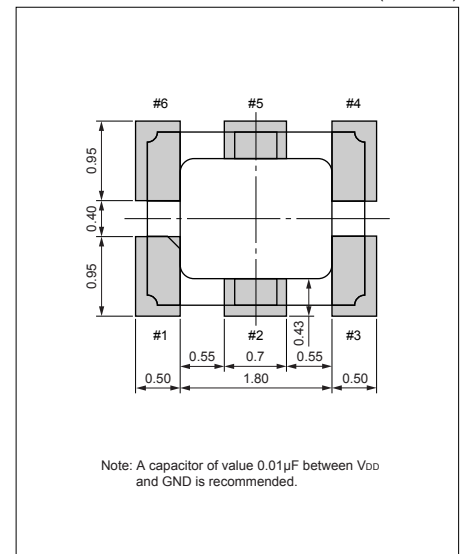


Test Circuit



Recommended Land Pattern

(Unit : mm)





Pb Free

RoHS Compliant

Features

- Ultra-miniature SMD type (3.2x2.5x1.0mm)
- AFC function available
- Frequency stability : $\pm 0.5 \times 10^{-6} / -30$ to $+85^\circ\text{C}$
- 2.3 to 3.5V drive available
- Reflow compatible

Applications

- GPS

How to Order

KT3225F 16367 A C V 28 T AA
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

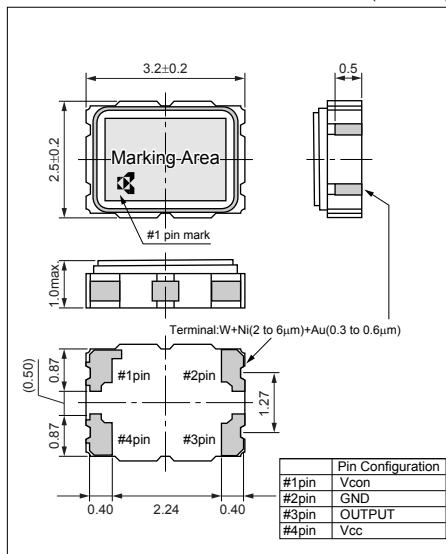
① Series	A	$\pm 0.5 \times 10^{-6}$
② Output Frequency	C	-30°C
③ Frequency Tolerance	E	-20°C
④ Lower Operating Temp.	G	-10°C
⑤ Upper Operating Temp.	W	+85°C
	V	+80°C
	U	+75°C
⑥ Supply Voltage	28	2.8V
	30	3.0V
⑦ Voltage Control Range	TCXO	T
⑧ Option Code		

Specifications

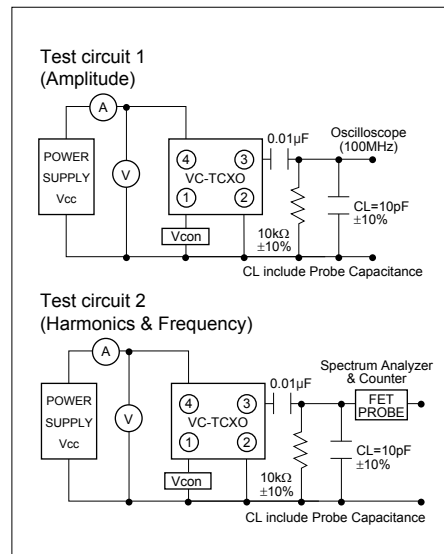
Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency	F _o		12.6	40	MHz
Frequency Tolerance	F _{tol}	vs Temperature	-0.5	+0.5	$\times 10^{-6}$
		vs Load	-0.2	+0.2	
		vs Voltage	-0.3	+0.3	
Frequency Aging	F _{aging}	Per Year	-1	+1	$\times 10^{-6}$
Storage Temperature Range	T _{stg}		-40	+85	°C
Operating Temperature Range	T _{use}		-30	+85	°C
Supply Voltage	V _{cc}		2.3	3.5	V
Output Level	V _{pp}	10k ohm // 10pF	0.8	—	V _{p-p}
Current Consumption	I _{DD}		—	2	mA
Symmetry	SYM	@50% V _{DD}	40	60	%
Harmonics	—		—	-5	dBc

Dimensions

(Unit : mm)

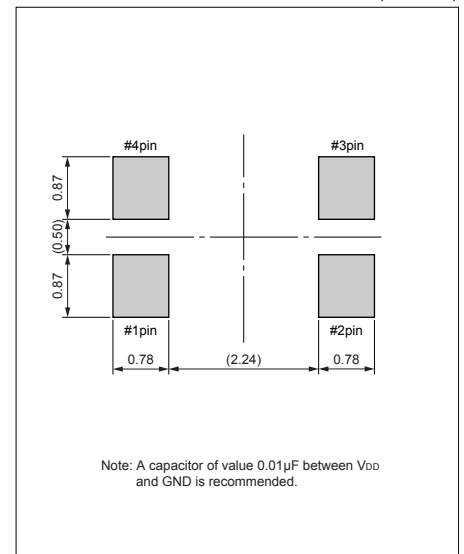


Test Circuit



Recommended Land Pattern

(Unit : mm)





3.2x2.5mm



Pb Free

RoHS Compliant

Features

- Ultra-miniature SMD type (3.2x2.5x1.0mm)
- Reflow compatible
- AFC function available
- 2.3 to 3.5V drive available
- Frequency stability : $\pm 2.0 \times 10^{-6}$ / -30 to +85°C

Applications

- 3G (CDMA, W-CDMA)
- GPRS, GSH

How to Order

KT3225P 26000 D C W 28 T AA
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① Series
- ② Output Frequency
- ③ Frequency Tolerance

B	$\pm 1.0 \times 10^{-6}$
C	$\pm 1.5 \times 10^{-6}$
D	$\pm 2.0 \times 10^{-6}$

- ④ Lower Operating Temp.

C	-30°C
E	-20°C
G	-10°C

- ⑤ Upper Operating Temp.

W	+85°C
V	+80°C
U	+75°C

- ⑥ Supply Voltage

28	2.8V	30	3.0V
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- ⑦ Voltage Control Range

TCXO	T
VCTCXO	Customer Spec

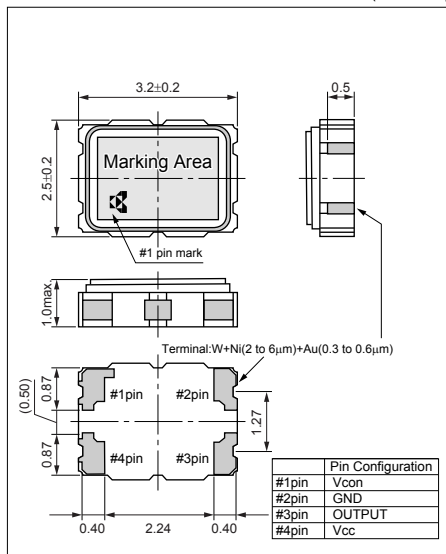
- ⑧ Option Code

Specifications

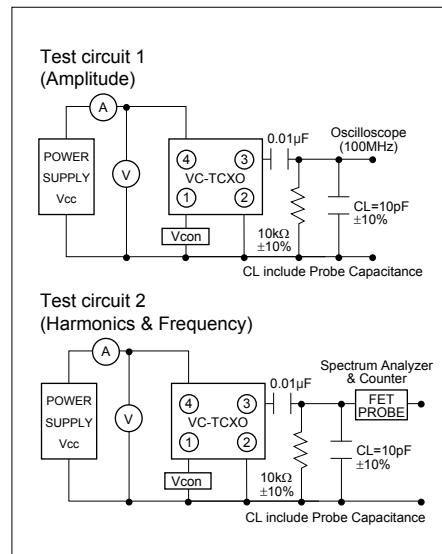
Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency	F _o		12.6	40	MHz
Frequency Tolerance	F _{tol}	vs Temperature	-2	+2	$\times 10^{-6}$
		vs Load	-0.2	+0.2	
		vs Voltage	-0.3	+0.3	
Frequency Aging	F _{aging}	Per Year	-1	+1	$\times 10^{-6}$
Storage Temperature Range	T _{stg}		-40	+85	°C
Operating Temperature Range	T _{use}		-30	+85	°C
Voltage Control Range	$\Delta f/V$	Positive	± 8	± 15	$\times 10^{-6}$
Supply Voltage	V _{cc}		2.3	3.5	V
Output Level	V _{pp}	10k ohm // 10pF	0.8	—	V _{p-p}
Current Consumption	I _{DD}		—	2	mA
Symmetry	SYM	@50% V _{DD}	40	60	%
Harmonics	—		—	-5	dBc

Dimensions

(Unit : mm)

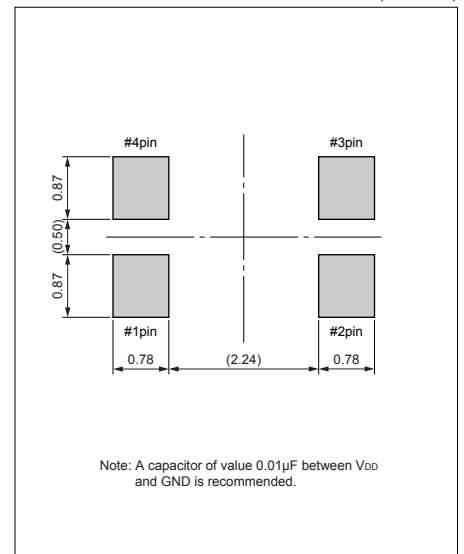


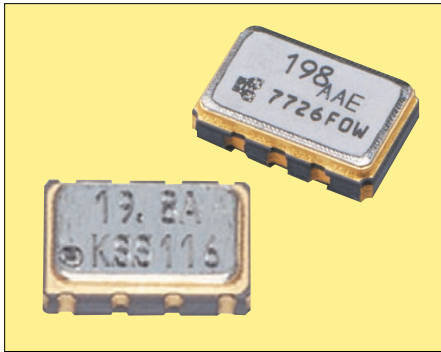
Test Circuit



Recommended Land Pattern

(Unit : mm)





Pb Free

RoHS Compliant

Features

- Ultra-miniature SMD type (5.0x3.2x1.5mm)
- Reflow compatible
- AFC function available
- 2.3 to 5.5V drive available
- Frequency stability : $\pm 2.0 \times 10^{-6} / -30$ to $+85^\circ\text{C}$

Applications

- PDC, GSM, CDMA

How to Order

KT5032N 26000 D C W 28 T AA
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① Series
- ② Output Frequency
- ③ Frequency Tolerance

B	$\pm 1.0 \times 10^{-6}$
C	$\pm 1.5 \times 10^{-6}$
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U	$+75^\circ\text{C}$

- ⑥ Supply Voltage

28	2.8V	30	3.0V
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- ⑦ Voltage Control Range

TCXO	T
VCTCXO	Customer Spec

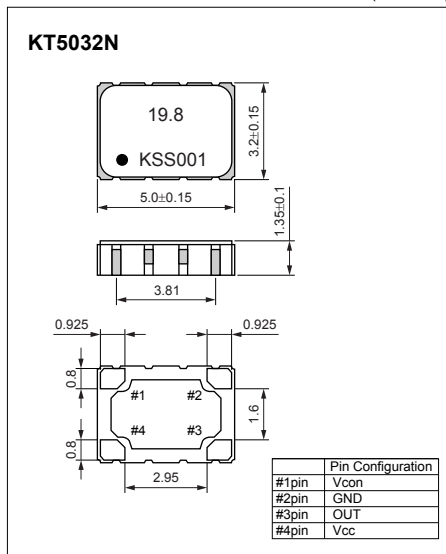
- ⑧ Option Code

Specifications

Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency	F _o		12.6	40	MHz
Frequency Tolerance	F _{tol}	vs Temperature	-2	+2	$\times 10^{-6}$
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Storage Temperature Range	T _{stg}		-40	+85	$^\circ\text{C}$
Operating Temperature Range	T _{use}		-30	+85	$^\circ\text{C}$
Voltage Control Range	$\Delta f/V$	Positive	± 8	± 15	$\times 10^{-6}$
Supply Voltage	V _{cc}		2.3	5.5	V
Output Level	V _{pp}	10k ohm // 10pF	0.8	—	V _{p-p}
Current Consumption	I _{DD}		—	2	mA
Symmetry	SYM	@50% V _{DD}	40	60	%
Harmonics	—		—	-5	dBc

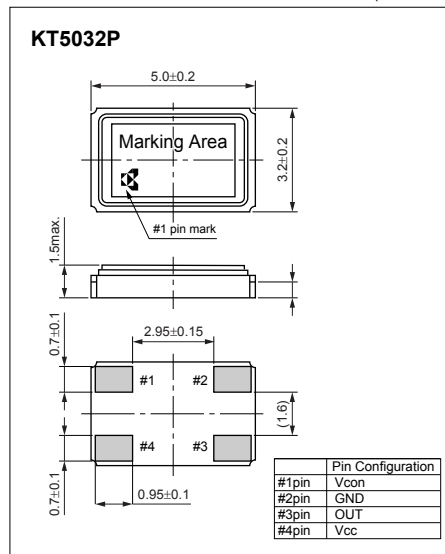
Dimensions

(Unit : mm)



Dimensions

(Unit : mm)



Recommended Land Pattern

(Unit : mm)

