

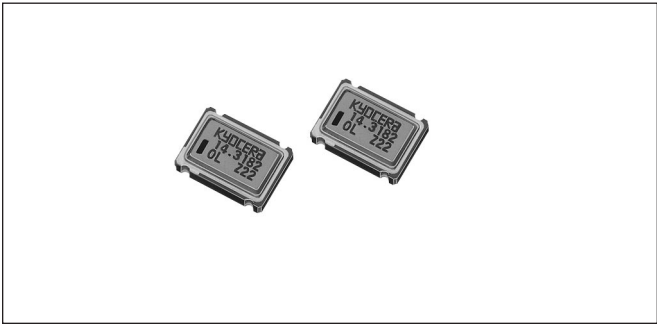
Clock Oscillators

K30/K50 Series

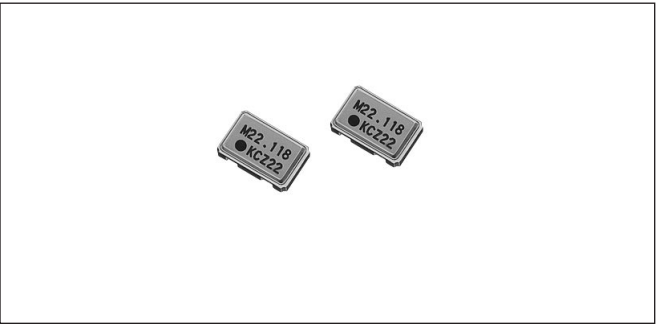


Kyocera has a wide range of clock oscillators with frequency and package size to match the various customer requirements.

K50 SERIES

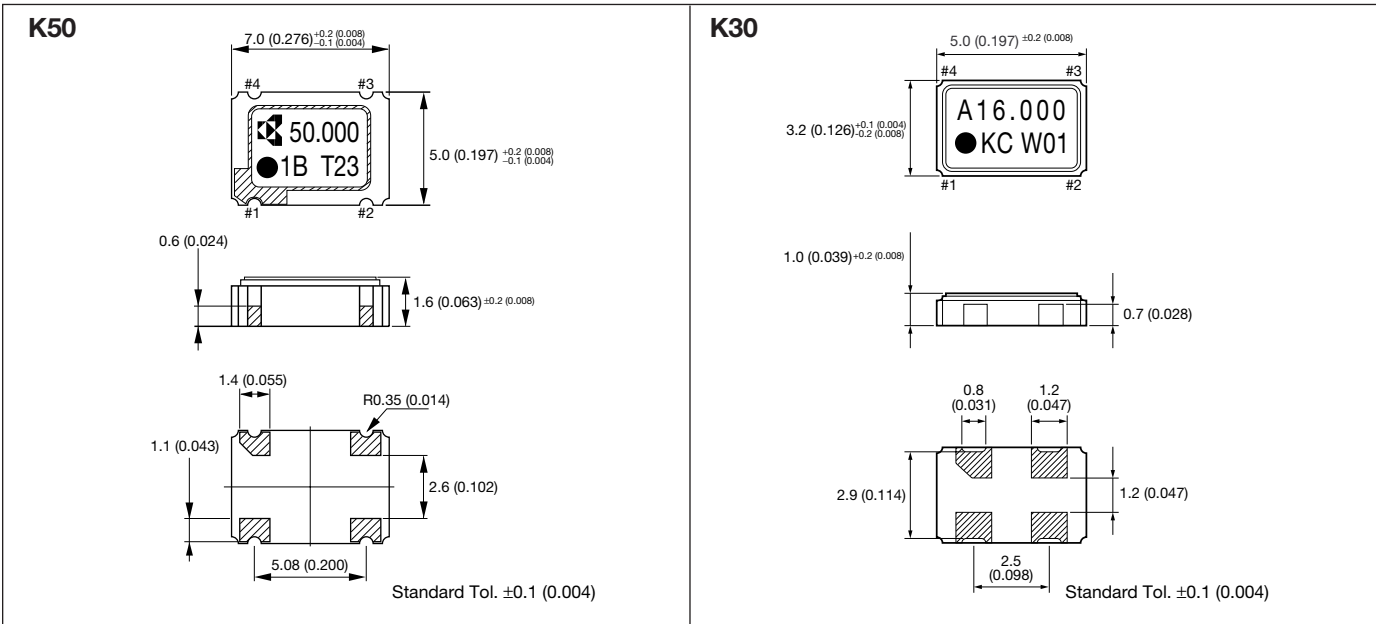


K30 SERIES



DIMENSIONS

millimeters (inches)



SPECIFICATIONS

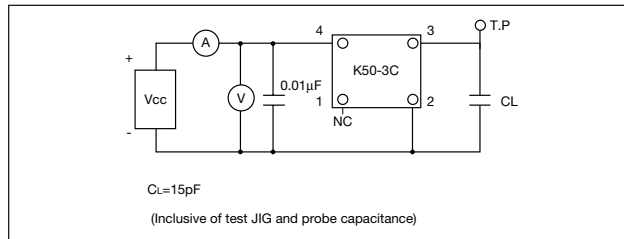
Type	Frequency Range (MHz)	Load	Drive Level	Duty Ratio	Features
K50-HC-C	8 to 68	$C_L=50\text{pF}$ (max.) ($f_o \leq 50\text{MHz}$)	CMOS $V_{OH}=0.9V_{CC}$ $V_{OL}=0.1V_{CC}$	45/55% (0.5Vcc)	1. IR Reflowable 2. Mini-SMD 3. Tristate Output, Enable/Disable Function F>50MHz $C_L=15\text{pF}$
K50-3C	8 to 75	$C_L=15\text{pF}$ (max.)	CMOS $V_{OH}=0.9V_{CC}$ $V_{OL}=0.1V_{CC}$	40/60% (0.5Vcc)	1. 3.3V Available 2. IR Reflowable 3. Mini-SMD 4. Tristate Output, Enable/Disable Function
K30-HC-C	8 to 50	$C_L=50\text{pF}$ (max.) ($f_o \leq 50\text{MHz}$)	CMOS $V_{OH}=0.9V_{CC}$ $V_{OL}=0.1V_{CC}$	45/55% (0.5Vcc)	1. IR Reflowable 2. Mini-SMD 3. Tristate Output, Enable/Disable Function
K30-3C	8 to 67	$C_L=15\text{pF}$ (max.)	CMOS $V_{OH}=0.9V_{CC}$ $V_{OL}=0.1V_{CC}$	40/60% (0.5Vcc)	1. 3.3V Available 2. IR Reflowable 3. Mini-SMD 4. Tristate Output, Enable/Disable Function

Clock Oscillators SMD

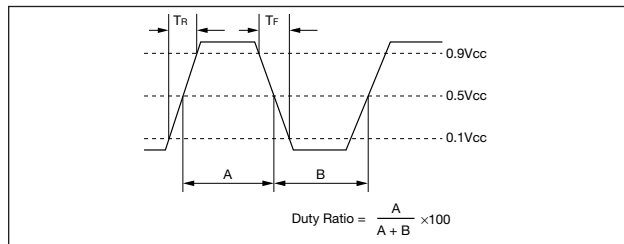


K50H-3C Series (3.3V)

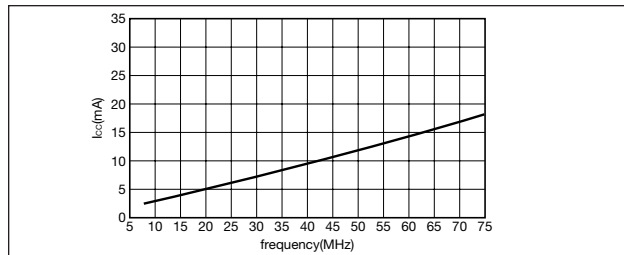
TEST CIRCUIT



OUTPUT WAVE FORM



SUPPLY CURRENT CHARACTERISTIC



PIN CONNECTION ENABLE/DISABLE

Pin #	Function
1	CONTROL
2	CASE GND
3	OUTPUT
4	+Vcc

Pin #1	Pin #3
"H" or Open	Oscillation
"L"	High Impedance or Oscillation Stop

SPECIFICATIONS

Items	Code	Rating	Unit	Remarks
Output Frequency	F _{OUT}	75.0000 to 155.5200	MHz	—
Frequency Precision	ΔF/F	±100, ±50	ppm	Inclusive of temperature load, voltage variation
Aging Rate	ΔF/F	±1.5	ppm/y	—
Operating Temperature	T _{OPR}	-10 to 70	°C	—
Storage Temperature	T _{STR}	-55 to 125	°C	—
Supply Voltage	V _{CC}	3.3±0.3	V	—
Supply Current**	I _{CC}	50	mA	CL=15pF
Duty Ratio**	SYM	45 to 55	%	0.5V _{CC} DC Level
Output 0 Level	V _{OL}	0.1V _{CC} max.	V	I _{OL} = 8mA
Output 1 Level	V _{OH}	0.9V _{CC} min.	V	I _{OH} = -8mA
Rise/Fall Time	T _R , T _F	2.0 max.	nsec	0.1V _{CC} -0.9V _{CC}
Load Capacitance	C _L	15 max.	pF	—
Enable/Disable Time Starting Time	—	10 max.	msec	—
		10 max.	msec	—
		10 max.	msec	—
Input Voltage Low	V _{IL}	30% V _{CC}	V	—
Input Voltage High	V _{IH}	70% V _{CC}	V	—
Deterministic Jitter***	DJ pk-pk	—	psec	more than 4 sigma invent

**Loaded (CL = 15pF) over all conditions

***The digital storage oscilloscope "wavecrest DTS-2057" shall measure jitter.

FEATURES

- Miniature SMD ceramic package type
- Frequency range = 75MHz to 155.52MHz
- Frequency precision = ±100ppm, ±50ppm
- Tristate output inhibit
- Low supply voltage (3.3V)
- Load capacitance 15pF

HOW TO ORDER

K50H - 3C 1 S E 106.2500M R

Packaging

R = Tape and reel,
1,000 pcs/reel

Frequency (MHz)

75 MHz to 155.52 MHz

Enable/Disable Function

E = with function (STD)

Duty Ratio

S = 45% to 55%
NIL = 40% to 60%

Tolerance

1 = ±100ppm
0 = ±50ppm
U = ±25ppm available

Series